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REMOVAL SITE INVESTIGATION REPORT
REVISON 1

REMOVAL SITE INVESTIGATION
QUANTA RESOURCES SITE
EDGEWATER, NEW JERSEY

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Project Number: GL0520-105

June 2000

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RSI REPORT RESPONSE TO COMMENTS

Regarding Review by Members of USEPA, NOAA, and the New Jersey Department of Environmental Protection (NJDEP) of the Removal Site Investigation (RSI) Report, dated October 1999 and the Engineering Evaluation/Cost (EE/CA) Report Analysis dated November 1999
Quanta Resources Site, Edgewater, New Jersey
Comment letter from USEPA dated 16 February 2000

1. **The report suffers from poor data presentation and does not provide comparison to known data values as previously discussed with the author. Reference data collection or evaluation of existing data from other area studies was requested. Reference sample locations would have to be clearly identified in the report. The main figures of the report contain only ranges of concentrations, making interpretation difficult. The lateral extent and mobility of contaminants also appears to be underestimated and downplayed-especially to the south and west. The vertical extent of contamination does not appear to have been adequately determined. This is true for soils, sediments and groundwater. Without adequate delineation it will be difficult to properly address this problem.**

RESPONSE: Information was recently provided by the USEPA regarding a regional Harbor Study of the lower Hudson River [D. Adams et al., 1998]. A few of the sample locations are in the vicinity of the Site, while the majority of others are located significant distances downstream in the Upper Harbor. The Harbor Study shows sediment in the Hudson River is contaminated with PAHs (and other constituents) beginning with sample locations at the north end of Manhattan island south to the Upper Harbor (Figure 4-8 in Adams et al., 1998). Concentrations of PAHs in sediment generally range between the Effects Range-Low (ERL) and Effects Range-Medium (ERM) biological screening guidelines (i.e., between 4022 and 44,792 ppb).

The new figures in the report express constituent concentrations as class interval ranges (typically five classes), color coded and in some cases size proportional to allow the reader to readily visualize areas of most elevated constituent concentrations. Specific sample concentrations are available on the electronic database file (enclosed diskette).

Figures 6-2 to 6-7 have been edited to also post actual concentration values adjacent to the sample location symbol.

Regarding the interpreted extent of contamination, edits and clarifications have been made to the revised RSI Report as supported by the available site characterization data. Response Action Objectives (RAOs) typically provide a general basis for interpretation of the extent of contamination. RAOs, presented in the Site Operations Plan prepared by GeoSyntec at the beginning of the project (approved by the USEPA), focus on delineation of coal-tar product (sheen producing) and grossly contaminated soil/groundwater. RAOs have been met with the site characterization completed for the RSI, including assessment of the vertical extent of contamination in groundwater (see response to comment #13).

2. **The depiction of the extent of product in Figure 5-1 is not conservative. The following locations also had indications that free product was present: CPT-R2, CPT-R5, CPT-R6, and MW-107. In the case of the CPT points, these appear to have been omitted from the figures as a result of the lack of differentiation between heavy and light product. This is not appropriate. Drill logs for MW-106, MW-108, and MW-109 also had indications of stained soils, and high levels of PAHs in groundwater from MW-106 and MW-109 suggest the presence of a NAPL.**

   Additionally, the treatment of product at CPT-10B and MW-101 as an isolated pocket is not logical. This is more likely continuous with the remainder of the contamination, extending under the "new" River Road. It should be noted that due to the contamination found under the road a membrane was installed along with fill/capping during the road installation project.

RESPONSE: Interpretation of the CPT/ROST response must consider both the percent fluorescence and waveform response. This interpretation is to a large extent qualitative and based on experience and judgement. The waveform response gives insight into the type of hydrocarbon type (light end, heavy end) while the percent fluorescence indicates a relative abundance ("concentration") of product. Heavy-end hydrocarbons exhibit a lesser intensity fluorescence than light-end hydrocarbons, for a given hydrocarbon content. Responses at CPT-R2, R-5, and R-6 exhibit low intensity fluorescence response and have been interpreted as not containing free product. Figure 5-1 is intended to show the conservative estimated limits of free/mobile product, and therefore locations such as MW-106 which exhibit only stained soils but no direct evidence of mobile product, have not been included in the product extent delineation.

Figure 5-1 has been adjusted to show continuation of the product delineation across "new" River Road.

3. **The cross sections indicate that the surficial sediments in the river are free of product, based on the lack of ROST response. This is misleading. At low tide, contaminant seeps are visible. It may be that the individual seeps are acting in a diapiric fashion which concentrated the contamination into the individual seeps. The sediments are contaminated, just not in a uniform fashion. This is important in that the current depiction implies that there is no direct discharge to the river, and there is clearly a discharge.**

RESPONSE: Product discharge emanating from upland source are visibly evident during low tide, as rivulets flowing over the surface of the mud flats. ROST response logs from upland areas confirmed by the test pits and other intrusive means, interpreted to contain hydrocarbon product differ substantially from ROST responses in the river setting, especially in terms of fluorescence intensity with river locations exhibiting a substantially lesser intensity response. Furthermore, vibracore continuous sediment sampling cores obtained at multiple locations from the river mudflats near the bulkhead, showed that coal tar product occurs as thin lenses within sediment without any indications of flowable product pools. The contribution of these product lenses to the sheen generation, if any, cannot be discerned given the magnitude of the upland source contribution.

4. **Section 6.2 does not include VOCs in the list of COIs for soils or sediments. The high levels of VOCs in groundwater imply that other media are also impacted. It is further unclear why PAHs are given as COI's for soils and sediment, while SVOCs are listed for groundwater. Please be consistent here.**

RESPONSE: Constituents of Intent (COIs) were derived during the project scoping phase from the ample site characterization records available from previous local area investigations. Theses COIs were approved by the USEPA in the Site Operations Plan and implemented for the RSI.

5. **In the sentence bridging pages 20 and 21, a reference to soils that were "smeared with the product but did not contain visible separate phase." What is intended here? If the product is visible, it is present as a separate phase, correct? Please clarify. Note that the contradiction is also present on page 22, in reference to MW-106.**

RESPONSE: This descriptive category is intended for soils containing coal tar staining and odor, but lack sufficient product volume within the soil matrix to be considered as a location of free product. "Jar" tests were conducted routinely during the soil boring and test pit work to investigate whether stained soils were capable of producing a sheen to water. Those stained soils incapable of producing a sheen were so categorized and not included in the product delineation shown on Figure 5-1.

6. **The data presentation on figures 6-2 through 6-7 is of limited usefulness. The broad ranges of contaminants depicted by each colored bar do not allow for detailed analysis of contaminated distributions. Furthermore, the selection of concentrations which define the contaminant ranges seem arbitrary. Presenting the actual concentrations would result in a much more usable set of figures. Granted this can get busy in areas of dense sampling, but insets could be used in such cases.**

RESPONSE: Figures 6-2 through 6-7 have been modified to incorporate risk-screening thresholds (ERLs and ERMs), where appropriate to the selected concentration class interval breaks. Actual sample concentrations are now posted on the figures.

7. **Tables and figures include only total VOC and SVOC data. Individual contaminant concentrations need to be presented as different compounds have different toxicities.**

RESPONSE: Individual constituent concentrations are now provided in the revised RSI tables.

8. **On page 21 it is contended that high levels of PAHs on the Celotex property have been excavated since stained soils are not present in 1996 aerial photo. This statement needs to be supported by documentation. Without a documents excavation, post-excavation sampling results, and proof of appropriate disposal, it must be assumed that the contamination is still present. Contact with NJDEP Case Manager Bob Hayton (609-633-0744) should clarify this issue.**

REPONSE: The RSI text has been modified.

9. **Based on Figure 6-4, only surface samples have been analyzed for PCBs on the Quanta property. This does not adequately address the possibility of PCB contamination, which may be present in the subsurface. Later in the report, the argument is made that PCBs in sediments are related to an offsite source. Due to lack of on-site data, this is an unfounded conclusion. Similarly, the absence of PCBs in the four groundwater samples collected is not adequate to determine that this contaminant is absent from the groundwater.**

RESPONSE: .Thirteen locations on the Quanta property were tested for the presence of PCBs. Of these, six were non-detect, six others were less than 5 mg/Kg, and one sample was 74 mg/Kg. All 13 locations were tested for surface soils (or very near the surface) which would have the greatest likelihood for PCB contamination. Statistically, it is appropriate to conclude from these data that PCB contamination is not an issue for the Quanta property. Similar results were obtained at multiple sample locations on other properties, primarily to the north. With respect to the off-site source argument regarding PCBs in the river sediment, this is based on several factors including:

- essentially all upland sample locations near or bordering the river are non-detect;

- PCB levels in the river sediment, locations spanning a distance of nearly 2000 ft of shoreline and 600 ft from the shore, are remarkably similar in concentration; and

- PCBs are very common contaminants in nearly every industrialized river in in Adams et al., North America (see Figure 4-7 in Adams et al., 1998 for the lower Hudson River).

10. Arsenic in river sediment is discussed on page 26. The distribution of arsenic in groundwater indicates discharge of the contaminant to the Hudson near the areas that show high concentrations in sediment. It seems possible that the arsenic is precipitating out of the groundwater due to changes in water chemistry as it enters the river. Also, in the conclusions section of the report, it is argued that the extent of sediment contamination is delineated. This is clearly not the case, especially in the case of arsenic near the pier.

RESPONSE: While arsenic was detected in groundwater samples from MW-29 and MW-12, it is highly unlikely that the low concentrations detected in these samples (0.14 and 0.27 ppm, respectively) can account for the concentrations detected in sediment samples in this area of the site. The upland soils data provide the strongest line of evidence to support this, since significantly lower concentrations of arsenic were detected in upland soils compared to sediment. Presumably, the upland soils would have to contain the source for the arsenic detected in groundwater. There is no evidence of a significant source in this area, since low concentrations were detected in both soils and groundwater. This theory is inherently inconsistent because it says that lower upgradient concentrations are responsible for higher downgradient concentrations in a surface water body, which would be impacted by transport and mixing in the river after the "discharge" of arscenic had occurred.

The statement that "It seems possible that the arsenic is precipitating out of the groundwater due to changes in water chemistry as it enters the river" is not consistent with the changes in geochemistry that would be expected to occur upon mixing with a surface water body. Firstly, the "changes in water chemistry" that would be amenable to arsenic precipitation, such as increasingly lower redox (i.e., reducing) conditions and/or increased sulfide concentrations, are not consistent with trends that are observed when groundwater comes into contact with surface water at pseudo-equilibrium with atmospheric oxygen. For example, groundwater from MW-29 was reported to have a pH of 6.70 and Eh of –138 mV and 0.14 mg/L arsenic. These conditions are borderline for precipitation of arsenic sulfide solids and a decrease in pH, increasingly reduced conditions, and/or increased sulfide concentrations would be necessary to precipitate such solids. These changes in geochemistry are not likely to occur upon mixing with a surface water body because mixing with water that is in a state of pseudo-equilibrium with atmospheric oxygen would promote a more oxidizing environment. Rather, under the conditions expected upon mixing with a surface water body, other (dissolved) forms of arsenic (such as arsenates) would be more likely to form (and sulfates versus sulfides as well).

Discussions of arsenic fate and transport have been added to Sections 6.4.4 and 6.5.4 in order to address the reviewer's comments.

11. **Page 27 indicates that groundwater samples were analyzed for PCBs and other metals besides those discussed. The four PCB samples are discussed elsewhere. The metals results are not given in the report and need to be presented.**

REPONSE: Metals results for arsenic, chromium and lead were described in Section 6.5.4. All metals data are provided in Table 6-4 (revised).

12. **On page 29, arsenic in groundwater is discussed. The report contends that arsenic is not mobile at the site, which is contradicted by the high levels present in groundwater. It is also stated that groundwater is "oxidized or only slightly reduced". Please include data that supports this statement. In addition, it is not appropriate to claim knowledge of what arsenic species are present without data to back it up. Please provide documentation to support statement. Lastly, it is very misleading to assert that arsenic levels decrease towards the river. Contouring the data shows discharge of arsenic to the river in the vicinity of the Celotex pier and along the Quanta property boundary.**

RESPONSE: Response: The high levels that were detected in groundwater are consistent with the statement that arsenic is not very mobile in groundwater at the site. The higher arsenic concentrations are localized in the vicinity of wells containing higher concentrations of arsenic (e.g., MW-107, MW-21). If arsenic were highly mobile in groundwater at the site, one would expect to observe similarly high arsenic concentrations in downgradient wells at the site (e.g., MW-106, MW-7). This is clearly not the case, and the reason that this is not the case is that arsenic is not very mobile in groundwater at the site.

A fate and transport evaluation has been added to Section 6.5.4 in order to better explain these observations.

13. **Groundwater beneath the organic layer has still not been characterized. Several borings were drilled to these depths, but hey were not completed as wells. The only well from below the layer is MW-31 which has shown high levels of arsenic, as well as the presence of other contaminants. Groundwater at this depth regime requires further investigation.**

RESPONSE: All borings and monitoring well installations were completed in accordance with the USEPA approved SOP. Two wells are screened in the lower portion of the aquifer, MW-30 and MW-31 both located on the property north of the Quanta Resources. Organic and inorganic constituents have been detected in the deeper monitoring wells, but the reviewer should consider the vertical concentration gradient when considering the adequacy of the contamination delineation (especially with respect to the RAOs). For example, constituent concentrations at MW-31 are about one order of magnitude less than the corresponding shallow well in this area.

14. **Samples were to be collected at low tide during the same tidal cycle. If tidal information was recorded for the sampling event, it should be presented in the revised document.**

RESPONSE: GeoSyntec is not aware of any requirements nor commitment to collect the sampling (assumed to be river sediments) in a single low-tide cycle event. Given the required number of stations requiring sampling, the logistics of such a sampling protocol would be tremendous. Furthermore, the scientific basis for this protocol has not been expressed. The river mudflats setting required samples to be collected during periods other than low tide, since water was needed to float the boat used for the sampling.

15. **All sediment results are to be compared with the effective range low ER-L and effective range median ER-M values (Long, et al., 1995), to screen for the potential for adverse ecological effects. This comparison was not presented, and must be included in the revised report; exceedences of the screening criteria must be emboldened. If would facilitate review if the color-coded concentration ranges used in Figures 6-2 and 6-7 could be linked to sediment criteria.**

RESPONSE: The RSI tables and figures have been modified to incorporate the ER-L and ER-M criteria.

16. **Two samples were run for full scan TCL.TAL analysis; from examination of Table 6-2, it is assumed these were SED1.5C and SED 3.5C. Complete data sets were not presented, and must be included in the revised report.**

RESPONSE: Complete data sets are provided in the revised RSI tables.

17. **Text on page 33 discusses flow of product to the river through "undiscovered conduits". Since the identification of the migration pathways was a major goal of this investigation, it appears this goal may not have been completely**

realized; uncertainty with regard to the identification of conduits from source areas to the Hudson River must be fully described in the revised report.

RESPONSE: Extensive test pit excavations were completed, under oversight of the USEPA, to locate and trace subsurface pipelines which could serve as conduits for transfer of coal tar products to the river. Pipeline discovered during the investigation were found to be discontinuous, none leading to the river. The statement "undiscovered conduits" was used because isolated seeps carrying hydrocarbon sheen are observed at low tide along the bulkhead; conduits in this sense refer to the likely preferential pathways in the upland fill soils leading to the bulkhead. The RSI has been revised to clarify this assessment.

18. Data supplied on computer disk cannot be downloaded for review in current format. Please provide two copies of data in printed format as well as solving the download problem.

REPONSE: Data was provided on the diskette in text (___.txt) format which can be uploaded into most spreadsheet and database software. USEPA should specify the desired format and a replacement diskette will be forwarded.

1. INTRODUCTION

1.1 Terms of Reference

GeoSyntec Consultants (GeoSyntec) has completed the Removal Site Investigation (RSI) for the Quanta Resources Site (Quanta Site) in Edgewater, New Jersey. The RSI was performed pursuant to a U.S. Environmental Protection Agency (USEPA) Administrative Order on Consent (AOC) index number II-CERCLA-98-0112, dated 30 September 1998. This revision to the RSI Report was made on the basis of USEPA comments dated 16 February 2000. Also pursuant to the AOC, GeoSyntec has prepared an Engineering Evaluation/Cost Analysis (EE/CA) Report that conveys an evaluation of remediation alternatives developed on the basis of this RSI Report.

1.2 Purpose

GeoSyntec performed the RSI in order to: (i) identify possible conduits for the transport of coal tar product from source areas to the Hudson River; (ii) delineate source areas which continue to impact on soil, river sediment, and groundwater; (iii) characterize the nature and extent of soil, river sediment, and groundwater contamination; and (iv) provide data on the geotechnical properties of the site soils in support of evaluation of engineered site remedies.

1.3 Scope of Investigation

A Site Operation Plan (SOP), which consists of a Work Plan, Sampling and Analysis Plan, Quality Assurance Plan, and Health and Safety Plan was prepared by GeoSyntec and approved by the USEPA in October 1998.

The site investigation which consisted of the following activities, was performed to address the aforementioned purpose:

- underground conduit investigation including a geophysical survey and test trenching;

- source area evaluation and nature and extent of soil contamination investigation utilizing soil borings, cone penetrometer testing (CPT), and test trenching;

- Hudson River sediment nature and extent of contamination investigation including sediment coring and CPT;

- groundwater nature and extent of contamination investigation including monitoring well installation and groundwater sampling; and

- geotechnical engineering evaluation including soil borings and CPT.

The Phase I Field Investigation was conducted in November and December 1998. A Phase I data package was distributed and a data review meeting was held with project stakeholders in February 1999. On 10 March 1999, based on USEPA request for additional characterization, GeoSyntec issued a work plan addendum to conduct additional characterization (Phase II Field Investigation). The USEPA issued written comments to the Phase II work plan on 12 April 1999. On 30 April 1999, GeoSyntec responded to USEPA comments and submitted work plan Addendum 1 to conduct the Phase II Site Investigation. USEPA approved the work plan addendum and the Phase II Field Investigation was conducted in June and July 1999.

1.4 Report Organization

The remainder of this report is organized as described below:

- Section 2 discusses site conditions;

- Section 3 describes local area investigations performed by other investigators;

- Section 4 discusses GeoSyntec's site investigation activities;

- Section 5 describes the extent of coal tar product;

- Section 6 describes the extent of constituents of interest (COIs) in soil, sediment, and groundwater;

- Section 7 presents the conclusions made from the investigation; and
- Section 8 contains references.

brown to black, fine to medium grained sand containing some silt, cinders, brick, wood, gypsum and concrete debris overlying non-continuous layers of marsh clay, silt, or sand. The clay and silt layers together form a continuos confining unit. The clay consists of gray to black semi-plastic soil with areas containing traces of silt, roots, and shell fragments [Parsons, 1998; Enviro-Sciences, 1997; and GeoSyntec, current]. The silt is gray, brown to reddish brown and often clayey. Sand is brown to gray, medium grained and sometimes silty. The bedrock at the site appears to be the Upper Triassic-age Stockton Formation, which consists of sandstone conglomerate and siltstone. Immediately west of the site are the Palisades, which consist of intrusive bodies such as diabase dikes and sills. The ground elevation increases from approximately 10 to 18 ft above mean sea level (msl) at the site to over 200 ft on the Palisades. To the east of the site lies the tidaly influenced Hudson River. A bulkhead separates the upland area from the river. River sediments consist of silt to clayey silt approximately 45ft thick immediately off shore from the bulkhead, which thicken eastward toward the main river channel. These mud flates are exposed at low tide in and inundated during high tide. During previous industrial activities, the river sediments adjacent to the bulkhead were dredged to allow barge access to the site. Sediments have redeposited since maintenance dredging ceased, elevating the mud flates to their current elevation (Figure 2-2).

2.3 Past Industrial Activities

2.3.1 Quanta Property

A coal tar roofing plant was located at the current Quanta Property and southern portion of the Celotex property from prior to 1930 until 1974 [USEPA, 1998a]. Typically roofing plants of this type used three main products: creosote, coal tar pitches and refined tars used for roads. Between 1974 and 1981 the Quanta property was used for reprocessing of waste oil. The New Jersey Department of Environmental Protection (NJDEP) stopped waste oil reprocessing activities after elevated concentrations of polychlorinated biphenyls (PCBs) were detected in some waste oil. After 1981, the Quanta property was not usually occupied. The Quanta property contained 61 above-ground storage tanks and 10 or more underground storage tanks as well as numerous underground pipes. The total capacity of the tanks was over nine million gallons

[USEPA, 1998a]. Tanks and product have been removed from the site under a previous USEPA Removal Action order between 1984 and 1988.

2.3.2 Other Properties

Over different periods of time the Celotex property contained a chemical plant which produced acids, alums and sodium compounds, and later a Gyspsum company and a vacuum truck company. After 1974 a metal reclaiming/refinishing plant was operated at the south side of the Celotex property. The Lustrelon property, located north of the Celotex property housed a lacquer spray paint and parts cleaning operation and raw materials warehouse.Historical aerial photographs and Sanborn fire-insurance maps of the study areawere reviewed using a geographic information system (GIS). The Sanborn maps provide approximate locations of former site features including underground piping. Figure 2-3 shows a 1940 aerial photograph (roofing plant activities at the Quanta Property) and a 1980 aerial photograph (waste oil reprocessing activities at the Quanta Property).

Observation of the 1980 aerial photograph in Figure 2-3 shows dark staining of the ground at the location of the vacuum truck company. A linear dark stained feature is visable from the metals reclaiming/refinishing plant to the edge of the Hudson River, and also dark staining or colored discharge in the Hudson River is observed near the end of this linear feature. These areas are unrelated to coal tar and waste oil recycling operations at the Quanta Property and may have contributed similar chemical constituents to the environment. Observation of 1986 and 1989 aerial photographs show that between these years an additional approximately 8 ft of fill was placed on the Celotex property (Figure 2-4).

2.4 Current Site Features

Currently the Quanta property is vacant and the remaining above-ground features consist of a sheet metal building located adjacent to the east side ofNnew River Road and office trailers located east of the sheet metal building (Figure 2-5). The Quanta property contains numerous exposed concrete tank and building foundations, the remains of an oil/water separator, a wood bulkhead at the rivers edge and remains of wooden docks. New River Road cuts across the western side of the Quanta property. Remnant coal tar pitch is present on the ground surface at various areas of the Quanta property. Pockets of oily sheen occur sporadically in the mud flats of the Hudson River adjacent to the Quanta property and southern Celotex properties. An absorbent boom is maintained to control the sheen. The Celotex Property is directly north of the Quanta Property and is separated by a chain-link fence. North of the Celotex Property is the Lustrelon Property. The Celotex and Lustrelon Properties are undergoing redevelopment, where an additional several feet of fill has been imported and graded bringing this property 6 to 8 ft above the grade of the Quanta Property. Commercial and residential structures are being erected on the Lustrelon Property and northern portion of the Celotex Property. The southern portion of the Celotex Property remains at rough grade. The Spencer Kellogg Property, located immediately south of the Quanta Property, has been redeveloped and presently includes the Bridge View Bank, various offices, a newly reconstructed dock containing parking and offices, and a daycare center for the property tenants. South of the Spencer Kellogg Property is the Lever Brothers Property, which is occupied by Unilever Research.

2.5 Site Hydrogeologic Setting

Groundwater beneath the site occurs within the unconsolidated fill/soil and bedrock. The water table varies in depth from approximately 10 to 20 ft at the Lustrelon and Celotex properties to approximately 3 to 7 ft on the Quanta property. Groundwater flow is from west to east discharging to the Hudson River. Groundwater recharge is a result of precipitation at the site that infiltrates to the water table and infiltration in upgradient areas such as the base of the Palisade Escarpement. The unconsolidated lithology is composed of non-native fill and native sand, silt and clay. The shallow fill and sand layers are characterized by high permeability (typical of sand) and represent the major groundwater flow zones. The silt and clay underlying the shallow fill and sand appears to be a low permeability zone as indicated by clay sampled from MW-108 at 15 to 17 ft bgs with a measured hydraulic conductivity of 3.9×10^{-8} cm/s. The Hudson River is tidaly influenced with the river water level fluctuating more than 6 ft during a tidal circle. This river water level variation influences the shallow water table immediately adjacent to the river. Tidal influence is further discussed in Section 4.5.3.

3. PREVIOUS INVESTIGATIONS

Previous investigations were performed on the Quanta Property by Parsons Engineering Science, Inc. (Parsons) in 1997 and by Roy F. Weston, Inc. (Weston) during 1992, 1995 and 1998. Also, remedial investigations were performed by Enviro-Sciences, Inc. (Enviro-Sciences) at the Celotex and Lustrelon Properties during 1997. These data have been provided to GeoSyntec but have not been validated or otherwise evaluated for quality. The analytical results from soil and sediment samples collected during these investigations are compiled along with the data collected under this RSI into an assessment of nature and extent of constituents of interest (COIs) in this report. A limited amount of groundwater data from previous investigations was provided to GeoSyntec, but since most of the monitoring wells previously sampled were also sampled during the RSI, the previous groundwater data is not included in this report.

Currently the Celotex and Lustrelon properties are being managed under NJDEP jurisdiction. Some clean-up operations are in progress at these properties, but these operations are being managed by others. The data provided to GeoSyntec for the Celotex and Lustrelon Properties is discussed in this report but it may not represent the current conditions at these areas due to remediation actions directed at hot spot areas on these properties.

4. SITE INVESTIGATION METHODS AND LOCATIONS

4.1 Surveying

4.1.1 Property Boundary Survey

A property boundary survey was conducted for the Quanta property by GEOD Corporation, a New Jersey licensed professional surveyor, during August and September 1999. The boundary survey drawing and legal description are included as Appendix A.

4.1.2 Global Positioning System Survey

Sampling locations and site monitoring wells were located using a survey grade, two receiver, global positioning system (GPS). The GPS was calibrated to New Jersey State Plane System, 1983 datum using local U.S. Geological Survey (USGS) bench marks. The GPS calculates location by the use of two receivers (one receiver is base station and one receiver rover) using radio signal from satellites, communicating between receivers using two-way radio, and compensating for differential errors received from the satellites. Using this configuration, the GPS is capable of horizontal accuracy of one centimeter and vertical accuracy of two centimeters.

4.1.3 Geophysical Survey

A surface geophysical survey was conducted in November 1998 to help locate underground pipes that may serve as conduits for transport of coal tar product to the Hudson River. The surface geophysical survey included two electromagnetic (EM) instruments, the Geonics EM-31 and EM-61. Additional details about these methods as well as the row data are provided in Appendix B.

Prior to the geophysical survey, a reference grid of pin flags was established using fiberglass tape measures and a right angle prism. The state plane coordinates of the reference grid was later estimated using the GPS. The reference grid lines were oriented approximately N25°E, perpendicular to the expected pipe orientation. These lines were spaced about 40 ft apart with pin flags placed every 50 ft along these lines. Many grid lines required clearing of vegetation. The location of the geophysical survey reference grid is shown on Figure 4-1.

An EM survey was conducted using a Geonics EM-31 terrain conductivity meter. The EM-31 has a nominal depth of penetration of approximately 15 ft. The EM-31 survey traverses were primarily conducted along the established N25°E trending lines. Several addition traverses were made perpendicular the main lines. For each traverse, EM-31 data were recorded at approximately 5-ft intervals. EM-31 data and station locations were stored in a digital data logger and downloaded to a computer for processing. A total of approximately 10,000 linear feet of EM-31 traverses were run.

Following the EM-31 survey, an EM-61 survey was conducted using the established reference grid. The EM-61 is a time-domain high-resolution metal detector which has a depth of penetration of approximately 6 ft. The EM-61 survey traverses were primarily conducted along the established N25°E trending lines. Several addition traverses were made perpendicular the main lines. For each traverse, EM-61 data were recorded at approximately 1-ft intervals. EM-61 data and station locations were stored in a digital data logger and downloaded to a computer for processing. A total of approximately 6,400 linear feet of EM-61 traverses were run.

The geophysical data were analyzed in the field to help select test trench locations. The data analysis revealed numerous geophysical anomalies indicative of buried metallic objects. Anomalies that exhibited linear trends were interpreted as possible buried pipe locations. These possible pipe locations were marked in the field for further investigation by trenching. Most of the geophysical anomalies did not produce linear patterns and are interpreted to be buried metallic objects such as reinforced concrete.

4.2 Underground Conduit Investigation

The first phase of the conduit investigation was to conduct the geophysical survey as discussed in the previous section of this report. The second phase was to excavate test trenches at areas marked from the geophysical survey as well as various other areas suspected to contain buried pipes (conduits) as shown in Figure 4-2. Numerous small diameter conduits were located around the Quanta and southern Celotex properties, many of which seem to extend for only a few feet before terminating. One pipe, which appears to be the drain from the oil/water separator, is approximately 18-inches in diameter and was tracked for approximately 190 ft in the direction of the Hudson River (terminating approximately 325 ft west of the bulkhead). Numerous test pits were excavated along the suspected alignment toward the river in attempts to track the piping to the likely discharge point at the bulkhead. A report from a previous investigation (Weston, 1995) indicates a conduit aligned with the oil/water separator drain pipe extending to the river (shown as dashed line on Figure 2-5). This section of the pipe may have been removed during the last Removal Action.

4.3 Soil Investigation

4.3.1 Overview

The soil investigation was conducted using test trenching, soil boring and cone penetrometer testing (CPT) with Rapid Optical Screening Tool™ (ROST™). The locations of the soil investigation are presented in Figure 4-2. Data from previous investigations was used to supplement the database for comprehensive local-area assessment.

4.3.2 Test Trenching

Test trenching was conducted using a Case 888 track hoe and located using GPS. A total of 17 test trenches were excavated. Trenches were logged during excavation. Test trench logs are presented as Appendix C and locations are shown on Figure 4-2. Trenches were excavated between approximately 1 and 18 ft deep. Material encountered in the trenches included sandy fill, concrete foundations walls and slabs, coal tar (ranging in consistency from very hard pitch to sticky roofing pitch to viscous oil -like material), pipes, and debris (wood, brick, concrete and metal). Soil samples for chemical analysis were collected from sidewalls and bottom of test trenches.

4.3.3 Soil Borings

Soil borings were drilled under GeoSyntec's direction using hollow stem auger and mud rotary methods. A total of 14 borings were drilled with ten converted to monitoring wells (Figure 4-2). Borings were logged by a qualified geologist (boring logs are presented as Appendix D.) Borings were generally continuously sampled using split spoon samplers. Samples for chemical analysis were collected from the split spoon. Two borings (B-3 and B-4) were advanced into bedrock to assess the thickness of fill and native soil and approximately 5 ft of rock was cored.

Soil boring logs were used to develop stratagraphic cross-sections of the site. Cross section locations are shown on Figure 4-3 and cross-sections are shown on Figures 4-4 to 4-7.

4.3.4 CPT/ROST™

A CPT equipped with ROST™ was used to obtain information on subsurface lithology, the geotechnical properties of the subsurface materials, and a semi-quantitative testing of petroleum hydrocarbon product (calibrated for coal tar product) in soil. The CPT/ROST™ investigation was conducted by FUGRO Geosciences, Inc. under subcontract to GeoSyntec, using a cone with a base area of 15 square centimeters, an apex angle of 60 degrees, and a 200 cm^2 friction sleeve. Due to the small size of the device, there is minimal disturbance of the subsurface and no investigative-derived wastes.

The CPT uses a combination of sleeve friction and tip resistance to identify subsurface soil properties and types. The sleeve friction, tip resistance, and the ratio between these two values is correlated with soil type and strength properties using empirical equations or charts. One such chart, Campanella and Robertson's Simplified Soil Behavior Chart, was used to estimate the soil type with depth at this site based on the CPT results.

The ROST™ operates by emitting laser light at a wavelength of 290 nanometers (nm) into the ground through a sapphire window approximately 30 in. above the bottom of the cone tip and monitoring the fluorescence response of the material against the window. The ROST™ is calibrated to a petroleum hydrocarbon standard prior to each use and the total fluorescence is measured in percent compared to the standard. The emitted florescence is measured simultaneously at four wavelengths (340, 390, 440 and 490 nm). The four wavelengths monitored cover the range of light fuels to heavy products such as coal tar. Based on the fluorescence distribution between the four wavelengths, different types of petroleum products can be distinguished. Lighter-end petroleum products such as gasoline have a high percent total fluorescence, a high 340 nm response and a very low 490 nm response. Heavy-end products, such as creosote and coal tar has a low percent total fluorescence, a very low 340 nm and a high 490 nm response.

The ROST™ device has many advantages over other traditional methods for delineating product in the subsurface, such as:

- ROST™ delivers a continuous profile of the petroleum hydrocarbon response;
- ROST™ is designed for rapid (real time) delineation of petroleum hydrocarbon product in subsurface soils; and
- data is provided in real time allowing for optimization of product delineation.

A total of 23 CPT/ROST™ locations were completed in the upland area. The ROST™ data was interpreted into four categories: (i) background response (no product detected); (ii) light end petroleum hydrocarbon product detected; (iii) undifferentiated hydrocarbon product detected (may be mixture of coal tar and other hydrocarbons); and (iv) heavy-end product detected such as coal tar and creosote. The interpreted ROST™ profiles are presented in Figure 4-8 and the CPT and ROST™ logs are presented as Appendix E.

4.4 <u>Sediment Investigation</u>

4.4.1 Overview

Hudson River sediments adjacent to the site were investigated using various methods to collect samples for chemical analysis and also using CPT/ROST™.

Sediment sampling locations are present on Figure 4-2. Data from previous investigations was used to supplement the database for comprehensive local-area assessment.

4.4.2 Sediment Sampling

Surface samples were collected by GeoSyntec using a ponar dredge to collect sediment from the top 6 in. A total of nine surface sediment samples were collected on a grid pattern extending from the Lever Brothers Property to the north end of the Celotex Property. Additional surface and shallow subsurface sediment samples were collected by GeoSyntec using a sediment core sampler and one hand auger boring. The sediment core sampler consisted of 2-in. diameter 10-ft long PVC pipe with a vacuum pump attachment. Core samples up to an approximate depth of 7 ft were collected using this method. The cores were extruded and samples for chemical analysis were collected from the extruded core. A total of 26 sediment cores were collected. One hand auger boring was advanced to an approximate depth of 12 ft adjacent to the Quanta bulkhead. The hand auger boring was advanced by augering inside a hand-driven 4-in. diameter PVC pipe.

Sediment samples to a depth of approximately 20 ft were collected using Vibracore equipment from a small barge. The Vibracore equipment consists of a 30-ft long 2-in. diameter aluminum core barrel, a concrete vibrator adapted to bolt to the outside of the core barrel, and a barge equipped with a cable hoist to extract the cores. The aluminum cores were vibrated into the sediment until refusal, extracted with the hoist and cut open lengthwise to log and collect samples for chemical analysis. A total of 10 vibracores were collected (labeled "VC" on Figure 4-2). Vibracore logs are present in Appendix D.

4.4.3 CPT/ROST™

A river sediment CPT/ROST™ investigation was conducted from a barge. A total of 10 CPT/ROST™ locations were completed in the river sediments. The interpreted ROST™ data are presented in Figure 4-8 and the CPT and ROST™ logs are presented as Appendix E.

4.5 Groundwater Investigation

4.5.1 Well Installation

A total of 10 monitoring wells (MW-101 to MW-110) were installed in accordance with NJDEP requirements as part of the RSI. Monitoring well locations are shown on Figure 4-2. The monitoring wells consist of 2-in. PVC with 0.010 in slot screen ranging in depth from 12 to 25 ft. The wells are generally screened from the base of the fill to approximately 2 ft above the water table. Wells were developed by pumping and surging until water clarity remained stable. Other wells, designated MW-1 to MW-34, were installed by others during previous area investigations.

4.5.2 Groundwater Sampling

Eight of the 10 wells installed by GeoSyntec and 20 existing wells were sampled. Two wells (MW-104, 105) installed by GeoSyntec contained free product at the time of the Phase I RSI sampling and therefore were not sampled for dissolved-phase COIs analysis (it should be noted that MW-102 and MW-103 sampled during the Phase I RSI (November 1998) were found subsequently in the Phase II RSI (June 1999) to contain product; thus, the Phase I sampling results for these two wells were likely influenced by the nearby presence of product). Groundwater samples were collected using low-flow purging techniques. A peristaltic pump with dedicated Teflon^R tubing was used for each well. The wells were purged until field parameters (pH, Eh, temperature and conductivity) stabilized (usually at least two hours), after which groundwater samples were collected.

4.5.3 Tidal Influence Monitoring

Tidal influence monitoring was conducted to assess the influence (if any) of the Hudson River tidal fluctuation on the upland areas of the site. Tidal influence monitoring was conducted using Insitu Troll™ dataloggers. A tide station was operated for more than eight days at the end of the Spencer Kellogg pier to record the Hudson River level while monitoring head fluctuation in select wells. The tide station recorded and maximum tidal variation of approximately 6 ft during the first day of monitoring.

Trolls™ were operated in monitoring wells MW-7, MW-20 and MW-31. MW-7 and MW-20 are screened in the fill material and MW-31 is screened below a clay (confining) unit. The dataloggers were set to record the water level and temperature every 12 minutes. MW-7 located approximately 75 ft inland from the bulkhead, showed approximately 1.5 ft of variation, but only during the peak high tides recorded at the tide station during the first four days of the monitoring. MW-20 located approximately 300 ft inland from the bulkhead was monitored during lower amplitude tides and did not indicate tidal influence. MW-31 located approximately 370 ft inland from the bulkhead showed approximately 0.5 ft of cyclic fluctuation, but it appears to be out of sequence with the tide. Although tidal influence was measured in the upland wells, it is much less pronounced then in the Hudson River and the magnitude quickly decreases further inland from the bulkhead. Tidal fluctuation graphs are presented as Appendix F.

5. EXTENT OF COAL TAR PRODUCT

The extent of heavy-end hydrocarbon product (coal tar & creosote) was evaluated using visual observation and chemical testing of soil borings, test trenches, sediment cores, Vibracores and ROST™ data. No analytical finger printing was performed to determine the product type. Based on the historical industrial use it is assumed that the heavy-end hydrocarbon product is composed of coal tar, creosote and other hydrocarbons. The coal tar present in the upland area appears to consist of hard solid coal tar pitch (solid pitch), sticky coal tar roofing pitch (roofing pitch) and viscous oil-like coal tar. The product is present to a depth of approximately 12 ft within the non-native fill. The solid pitch was observed in test trenches on the Quanta Property and southern Celotex Property in layers as thick as approximately 5 ft. The solid pitch is black, glassy, very hard (very difficult to excavate with track hoe), non-mobile, and often in thick layers. The roofing pitch is black, sticky and usually in thin non-continuous lenses. The roofing pitch is sometimes associated with the coal tar pitch (above or below pitch layer) and is often found within the top 2 ft of fill. Roofing pitch is also present on the ground surface in areas of the Quanta property and appears to be more abundant and mobile during the summer.

Oil-like product has collected in monitoring wells MW-102, 103, 104 and 105 on the Quanta Property. Monitoring wells MW-102, 103, and 104 were installed during the Phase I Field Investigation (November 1998) and MW-104 was the only well that initially contained product. During the Phase II Field Investigation (June 1999), MW-105 was installed and product was observed to accumulate immediately in this well. MW-102 and MW-103 also contained product during the Phase II investigation. The thickness of product measured in these monitoring wells ranged from approximately 1 inches in MW-105 to approximately 4 ft in MW-104. In June 1999, approximately 5 quarts of viscous oil-like product was pumped from MW-104 in approximately 3 hours before evacuating the well. The well was allowed to recover for approximately 2.5 hours. Then approximately 1 quart was pumped in approximately 1 hour and the product was once again evacuated from the well.

The product present in the river sediments consists of thin lenses of oil like product and roofing pitch within the river silt. At the near shore Vibracore and hand auger sampling locations, the lenses are more prevalent and increase in thickness and abundance with depth to the maximum depth sampled (approximately 20 ft). CPT/ROST™ locations CPT-R7 and CPT-R10 (closest inland ROST™ locations) show the product lenses extending to between approximately 27 and 31 ft below the top of sediment. The product lenses in the river silt increase in depth eastward (CPT-R1 contains coal tar between approximately 30 and 50 ft below ground surface). The surface sediment in most areas appears to contain little to no product. Figure 5-1 shows the lateral extent of product. The ROST™ data is presented on Figure 4-8 and extent of product is also presented on cross-section Figures 4-4, 4-5, 4-6 and 4-7.

The interpreted extent of heavy-end product (product is defined as a potentially mobile, separate phase liquid) presented in Figure 5-1 is a conservative estimate based on all the investigative techniques utilized. On the west side of the site data points are located on both the east and west sides of New River Road, but no data was collected from below New River Road during this RSI. Based on reports by USEPA that product was encountered during road construction activities the area of New River Road is included in the extent of heavy-end product. On the south side of the interpreted extent of heavy-end product monitoring wells MW-107 and MW-106 are located. Some soil staining and coal tar-like odor were detected at these locations but no free-phase product, therefore, these locations are not included within the extent of heavy-end product. Within the river sediment are ROST™ locations CPT-R2, CPT-R5 and CPT-R6. These locations are interpreted as being beyond product extent, based on the low fluorescence response (less than 4% compared to 15% or higher in areas of visible product) and the signature of wavelength response (340nm is low but 490nm is not high enough). The ROST™ response measured at locations CPT-R2, CPT-R5 and CPT-R6 is interpreted as heavy-end product similar and possibly related to the Quanta Resources Site product, but more of a typical "background" hydrocarbon contamination present in Hudson River sediments. USEPA investigations of the lower Hudson River show total PAH concentrations in sediment ranging from approximately 6 to 200 mg/Kg [USEPA, 1998].

6. EXTENT OF CONSTITUENTS OF INTEREST

6.1 Overview

This section presents an evaluation of the extent of COIs in soil, sediment, and groundwater at the Quanta property and at neighboring properties, which comprise the study area for the RSI. This evaluation was based on results from analyses of samples obtained during the RSI as well as results from previous investigations performed at and around the site. Tables 6-1 to 6-4 provide summaries of analytical results and Appendix G contains a computer disk of all data.

6.2 Evaluation of COIs

The COIs for the RSI were identified based on the results of previous investigations at the site and neighboring properties and were approved by the USEPA per their review and approval of the Site Operation Plan [GeoSyntec, 1998]. Results were evaluated for a total of 356 soil and 9 groundwater samples that were analyzed for a range of constituents, including volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs) (which include polycyclic aromatic hydrocarbons (PAHs)), PCBs, and metals (including antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, selenium, silver, thallium, and zinc). The COIs that were identified for the RSI included the following:

- PAHs, arsenic, chromium, and lead in soil;
- PAHs, arsenic, chromium, and lead in sediment; and
- VOCs, SVOCs, arsenic, chromium, and lead in groundwater.

6.3 Extent of COIs in Soil

Soil samples obtained during the RSI were analyzed for PAHs, arsenic, lead, and chromium, which were identified as COIs in the approved Site Operation Plan; selected samples were also analyzed for PCBs and VOCs to further evaluate the extent of these constituents in soils in the study area. Results from analyses of these samples were combined with results from previous investigations in order to assess the extent of COIs in soil in the former area of operations on and in the vicinity of the Quanta property. Comprehensive soil sampling results are presented in Table 6-1 for all soil samples that have been collected within the study area. Soil sampling locations are shown in figure 6-1 and results are presented for VOCs, PAHs, PCBs, arsenic, chromium, and lead in soil in Figures 6-2 through 6-7, respectively. It should be noted that most soil data from the Celotex and Lustrelon properties were obtained during previous investigations and may not represent current conditions in these areas due to ongoing cleanup and construction operations.

6.3.1 Extent of VOCs in Soil

During the RSI, 24 soil samples were obtained from multiple depths at 14 locations for VOC analysis in addition to the 21 soil samples that were analyzed for VOCs during previous investigations. Examination of Table 6-1 and Figure 6-2 reveals that VOC detections were scattered in soil in the area of investigation, and that BTEX constituents were the primary VOCs found in soil samples. VOCs were detected at various depths in the area of investigation, ranging from surface soils to 23 ft below ground surface (bgs). Most samples containing VOCs contained concentrations of total VOCs below 40 mg/kg. The highest concentrations of VOCs were found in samples collected from visibly contaminated site soils having a strong organic odor. These samples were located in the southeast portion of the Celotex property and along the northern border of the Quanta property, where VOCs were also detected in groundwater. Total VOC concentrations up to 742 mg/kg were observed in soils to depths of 18 ft bgs in this area. VOC contamination does not appear to be widespread in soil within the study area, since low to non-detectable concentrations were found in other areas of the site.

6.3.2 Extent of PAHs in Soil

PAHs were analyzed and were detected in all 49 soil samples collected during the RSI in addition to the 246 soil samples that were analyzed for PAHs during previous investigations. Soil samples were collected during the RSI from three categories of soil and/or fill: (i) soil containing product, which comprised soil that contained visible separate phase of product such as hard roofing pitch, very viscous tar, or less viscous creosote product; (ii) stained soils, which consisted of soils that were smeared with product, or soils that contained a sheen; and (iii) visibly clean soils. As shown in Figure 6-3, PAH detections occur across the entire area of investigation. Samples with elevated PAH concentrations (>3000 mg/kg) are grouped in two areas within the study area. The first area comprises a cluster of samples, including C-45, C-46, C-47, and C-50, located in the western portion of the Celotex property that were collected by Enviro-Sciences during their 1997 investigation at the Celotex and Lustrelon properties. These samples were obtained from similar depths, ranging between 6.5 to 8.5 ft bgs. The samples represent the deepest samples obtained from each location, and the vertical extent of contamination was not bounded at that time. Samples collected from test trenches (T-5 and T-6) during the RSI confirmed the presence of significant concentrations of PAHs in this area, but lower concentrations were measured in the RSI samples than were previously found. The sample collected at a depth of 2 feet bgs from T-5 contained the highest total PAH concentrations of the samples from T-5 and T-6. This sample consisted of black stained soil that contained a creosote-type odor. These samples were obtained from an area of that was not on or in the immediate vicinity of former operations areas on the Quanta property. Rather, these samples were obtained in the vicinity of former vacuum truck company operations. Examination of the 1980 aerial photo (Figure 2-3) indicates the presence of stained surface soils in this area, as evidenced by the dark-colored area on this photo in the western portion of the Celotex property. This area is currently being managed under NJDEPs remediation program and not believed to be associated with industrial activities related to the roofing plant or waste oil recycling at the Quanta Property.

The second grouping of elevated PAH concentrations were found during the RSI in surface and shallow subsurface (1 to 5 ft bgs) soils on the Quanta property. These samples, which included samples from locations T-1, T-2, T-8, MW-103, and MW-105, were collected from soils that contained visible coal tar product and/or substantially stained soil or fill, and a strong organic odor. These samples contained elevated total PAH concentrations ranging from 7,840 mg/kg to 31,600 mg/kg at depths ranging from surface soils to 5 ft bgs. Consistent with the results from test trenching activities conducted during the RSI (Section 4.2.1), these elevated PAH concentrations appear to indicate the presence of coal tar product in this portion of the site. Deeper samples were obtained from most of these sampling locations. These deeper samples contained much lower concentrations of PAHs and provided information to bound the vertical extent of PAH contamination in this area of the Quanta property.

Elevated PAH concentrations were also observed in a single sample from MW-106 at a depth of 18 ft bgs south of the Spencer Kellogg property. The elevated PAHs were bounded vertically and to the southwest (MW-109) and northwest (MW-107) by samples containing lower PAH concentrations. MW-106 is not considered to be within the area that was interpreted to contain mobile coal tar product (Figure 5-1). Split spoon samples obtained during drilling at MW-106 did show the presence of lightly stained soil and a slight coal tar odor, but the well did not yield mobile coal tar product during development and sampling purge operations.

Lower concentration levels of PAHs (300 to 3000 mg/kg) were detected in soil samples collected from a localized area along the southern border of the Celotex property (C-32, C-34, C-35, C-13, and C-57). These samples were obtained during the 1997 investigation by EnviroSciences from depths ranging from 5 to 7.5 ft bgs, except for C-57, which was obtained at a depth of 11.5 ft bgs. The vertical extent of PAHs was not bounded, however, since deeper samples were not collected at these locations. GeoSyntec did not visually assess the samples, and no information was provided by Enviro-Sciences about the appearance of these samples. The total PAH concentrations measured in these samples were less than 3000 mg/kg, and were consistent with concentrations measured in samples described as stained soil samples collected by GeoSyntec. Thus, these samples contain PAH concentrations that indicate the presence of a stained soil rather than coal tar product.

6.3.3 Extent of PCBs in Soil

Results from PCB analysis of soils are shown on Figure 6-4. PCBs were not detected in any of the six samples obtained by GeoSyntec from five locations during the RSI (T-4, T-6, T-8, CPT-24, CPT-21); PCBs were detected in 21 samples from previous investigations. Figure 6-4 shows that most soil samples from the current and previous investigations contained non-detectable concentrations of PCBs. Samples containing detectable concentrations of PCBs were limited very localized areas within the study area that have been identified as former transformer locations. The highest concentrations of PCBs were measured during the Enviro-Science investigation in 1997 in samples from location HD-3D, which was obtained in the eastern portion of the Lustrelon property, northwest of the pier. Elevated PCB concentrations (963 and 6810 mg/kg) were detected at this location at depth, and were not bounded vertically. PCBs were also detected during the 1997 investigation in the western portion of the Lustrelon property (from locations LHA-1A, LHA-1D, and LHA-1E). PCBs were detected in surface soils along the western boundary of the Quanta property (from locations QE002, SF-3A, and SF-3C) at concentrations less than 20 mg/kg except for one sample, which contained 74 mg/kg total PCBs.

6.3.4 Extent of Metals in Soil

Arsenic was detected in 47 of the 49 soil samples analyzed during the RSI in addition to 174 samples in which arsenic was detected during previous investigations. Results of the RSI and previous investigations with respect to arsenic analyses are presented on Figure 6-5. This figure shows that low levels (concentrations up to 30 mg/kg) of arsenic occur throughout soils in the area of investigation. Higher arsenic concentrations were found in subsurface soil samples at scattered locations, with the highest arsenic concentrations (300 to 3370 mg/kg) detected in subsurface samples from the 1997 investigation in the western portion of the Celotex property (C-79, C-80, MW-110, and T-5) and in a few other subsurface samples (C-93, C-90, C-11) within the area of investigation.

Chromium was detected in all 49 soil samples analyzed during the RSI and in 125 samples analyzed during previous investigations. The results from the RSI and previous investigations are shown on Figure 6-6. Chromium was usually detected at concentrations below 40 mg/kg with chromium concentrations in this range widely distributed across the study area. Higher chromium concentrations were detected in a limited number of subsurface samples from the Enviro-Science investigation in 1997 at scattered locations across the area of investigation (e.g., C-77, C-92, and C-89), with no apparent location groupings except that no chromium concentrations above 40 mg/kg were observed in soils on the Quanta property.

Results from the RSI indicated that lead was present in all 49 soil samples obtained during the RSI and in 181 samples from previous investigations. These results are presented on Figure 6-7. This figure shows that lead was detected at low concentrations in most soil samples obtained in the study area (usually below 400 mg/kg). Elevated lead concentrations (>1000 mg/kg) were measured in subsurface soils in the western portion of the Celotex property in the vicinity of where a gas tank was formerly buried on the property (Figure 2-3). Leaks of leaded gasoline from this gas tank would explain these elevated lead concentration. Elevated lead concentrations were also found in other scattered subsurface soil samples on the Lustrelon property, and in a single surface soil sample on the Quanta property.

Results from analyses of metals in soils during the RSI confirmed previous findings, which indicated that elevated metals concentrations were present primarily in subsurface soils at locations scattered around the site. This scattered distribution suggests that the elevated metals concentrations resulted from minor releases to the soil that did not cause widespread contamination at the site.

6.4 Extent of COIs in Sediment

Sediment samples obtained during the RSI were analyzed for PAHs, arsenic, lead, and chromium, which were identified as COIs based on results from previous investigations. Sediment samples were also analyzed for PCBs because PCB analyses had not been performed previously for sediment samples from the site. VOCs and other metals were also analyzed in two samples submitted for TCL/TAL analyses. Results from analyses of these samples were combined with results from previous investigations in order to assess the extent of COIs in sediment at the site. Comprehensive sediment sampling results are presented in Table 6-2 for all sediment samples that have been collected in the study area. Grain size percent moisture, pH and TOC data for surface sediment samples are presented in Table 6-3. Sediment sampling locations are presented on Figure 6-8; sediment results are presented with soil results for VOCs, PAHs, PCBs, arsenic, chromium, and lead in Figures 6-2 through 6-7, respectively.

6.4.1 Extent of VOCs in Sediment

Results from analyses of the two sediment samples that were analyzed for VOC constituents are presented in Table 6-2 and on Figure 6-2. The VOCs detected in these samples consisted of BTEX constituents, with total VOC concentrations of 0.82 and 28.2 mg/kg.

6.4.2 Extent of PAHs in Sediment

PAHs were detected in all 70 sediment samples that were collected during the RSI. Results for PAH analyses of sediment samples from the current and previous sediment investigations are presented on Figure 6-3. This figure shows that PAHs were detected in Hudson River sediment along the entire river bank. The highest concentrations of PAHs (>3000 mg/kg) were found in sediment adjacent to the Quanta property, at depths ranging from 2 to 12 ft below the top of sediment. These sediment samples were obtained from visibly stained sediments, some of which appeared to contain thin seams of coal tar product. Samples from this depth range contained decreasing concentrations of PAHs with increasing distance from the river bank, however, high concentrations were detected at even greater depths (from 17 to 20 ft below the top of sediment) in samples further from the bank (e.g., VC-05 and VC-06). The extent of elevated PAH concentrations in these deeper samples decreased as distance from the river bank was further increased, as demonstrated by samples obtained from CPT-8A and CPT-9A, which contained less than 3000 mg/kg total PAHs. The distribution of these elevated PAH concentrations in Hudson River sediment is consistent with the extent of coal tar product that was identified in sediment during the RSI (Section 5.3). Comparison of Figure 6-3 with Figure 5-1 shows that PAH concentrations in sediment were significantly lower (<300 mg/kg) in areas that do not contain coal tar product. PAH concentrations above 300 mg/kg were only found in two samples that were obtained outside of areas containing coal tar product. These two samples, SC-02 and SC-04, were located in sediment adjacent to the Lustrelon property.

6.4.3 Extent of PCBs in Sediment

Results from PCB analyses of sediment samples are presented on Figure 6-4. These results show that PCBs were widely distributed in Hudson River sediment, since PCBs were detected in 69 of 70 sediment samples that were analyzed during the RSI. PCB results also show that total PCB concentrations were below 2.0 mg/kg in most sediment samples. The maximum total PCB concentration detected in sediment was 6.5 mg/kg. PCBs were detected in sediment samples in areas where upland soils did not contain detectable concentrations of PCBs. This suggests that the wide distribution of PCBs in sediment is due to other off-site source areas. Other evidence supporting a conclusion of an off-site PCB source to the river sediment includes:

- PCB levels in the river sediment, locations spanning a distance of nearly 2000 ft of shoreline and 600 ft from the shore, are remarkably similar in concentration; and
- PCBs are very common contaminants in nearly every industrialized river in North America (see Figure 4-7 in Adams et al., 1998 for the lower Hudson River.

6.4.4 Extent of Metals in Sediment

Arsenic was detected in all 70 sediment samples that were analyzed during the RSI; arsenic results are presented on Figure 6-5. As shown on this figure, the highest arsenic concentrations (greater than 300 mg/kg) were detected in samples obtained from Hudson River sediment adjacent to the Lustrelon property (e.g., SC-01, SC-02, SC-04, and SC-05). High arsenic concentrations were observed in both surface and subsurface sediment in this area. Figure 6-5 shows that the upland soils in this area contained much lower concentrations of arsenic. Groundwater sampling locations are shown on Figure 6-9, and arsenic concentrations in groundwater are shown in Figure 6-10. As shown on this figure, arsenic concentrations in groundwater directly upgradient from the highest sediment arsenic ranged from non-detectable concentrations in MW-30 to 0.27 mg/L in MW-12. Because arsenic concentrations in upland soil were much lower than in sediment, and because groundwater did not contain high concentrations of arsenic, it is unlikely that the upland area contains a source for the higher concentrations of arsenic observed in sediment. Section 6.5.4 contains a more detailed discussion of arsenic fate and transport in the upland area.

Most of the remaining sediment samples contained less than 300 mg/kg arsenic, with some higher concentrations (ranging between 30 and 300 mg/kg) observed in samples obtained adjacent to the river bank along the Celotex, Quanta, and Lever Brothers properties. Figure 6-5 reveals that arsenic concentrations in sediment were also higher than in adjacent soils in these areas. As shown in Figure 6-10 groundwater from monitoring wells upgradient from these sediment samples exhibited decreasing concentrations of arsenic in the downgradient direction toward the river, with concentrations ranging from nondetectable levels to 0.045 mg/L in groundwater samples immediately adjacent to the river. These results indicate that the upland soils and groundwater were not a source of arsenic in the river sediment. Direct discharges to the river from former operations on the properties, such as wastewater from the metal plating facility that operated in the southeast portion of the Celotex property (Figure 2-3) would explain the elevated arsenic concentrations in sediment.

Chromium was also detected in all sediment samples obtained during the RSI. As shown in Table 6-2 and on Figure 6-6, chromium concentrations ranged between 40 to 270 mg/kg in Hudson River sediment. Chromium concentrations were slightly higher in subsurface sediment samples, and chromium appeared to be evenly distributed laterally. Figure 6-6 also reveals that chromium concentrations were much higher in sediment than in soils in the study area, which indicates that uplands soils were not a source for chromium in Hudson River sediment. This is supported by groundwater data that reveal low (less than 0.034 mg/L) to nondetectable concentrations of chromium in groundwater in upland areas at the site.

Results from analyses of lead concentrations in Hudson River sediment samples are presented on Figure 6-7. These results indicate that lead was detected in all of the RSI sediment samples, usually at concentrations below 400 mg/kg. Higher lead concentrations (between 400 and 1540 mg/kg) were detected in samples obtained from sediment adjacent to the Lustrelon property (SC-01, SC-02, and SC-04) in an area where elevated arsenic and chromium concentrations were also measured. The consistent elevated concentrations of metals in sediment adjacent to the Lustrelon property suggest that a source of metals may have been present in this area at one time. For the rest of the area of investigation, lead concentrations appeared to be evenly distributed in river sediment.

6.5 Extent of COIs in Groundwater

Groundwater samples obtained during the RSI were analyzed for VOCs, SVOCs, arsenic, lead, and chromium, which were identified as COIs based on results from previous investigations. PCBs and other metals were also analyzed in groundwater samples submitted for TCL/TAL analyses. Results from analyses of these samples were evaluated to assess the extent of COIs in groundwater at the site. Groundwater sampling locations are presented on Figure 6-9. Results from analyses of RSI groundwater samples are presented in Table 6-4 and on Figures 6-10 through 6-22.

6.5.1 Extent of VOCs in Groundwater

Results from VOC analyses of groundwater samples are presented on Figure 6-11. This figure shows that VOCs were detected in 23 of 27 groundwater samples collected during the RSI at total VOC concentrations up to 23.9 mg/L. BTEX constituents were the primary VOCs detected in groundwater in the southern portion of the site, which includes the Celotex, Quanta, and Lever Brothers properties. BTEX concentrations are also shown on Figure 6-11. The highest total VOC concentrations were detected in this area in MW-102 (23.9 mg/L) and MW-103 (15.60 mg/L) along the southern border of the Quanta property, and in MW-107 (9.1 mg/L), which is located south of MW-103 on the Lever Brothers property. Slightly lower BTEX and total VOC concentrations, ranging from 1.0 to 3.7 mg/L, were detected north and northeast of MW-103 on the Celotex property in samples from MW-6, MW-4, MW-1, MW-21, MW-2, and MW-7. Significantly lower BTEX and total VOC concentrations were detected in MW-31, which is located in the vicinity of these wells but is screened below the confining unit. This distribution of VOCs indicates the presence of a plume of BTEX constituents in groundwater at the site. These VOC concentrations in groundwater are bounded to the north and west by lower and/or non-detectable concentrations of VOCs, and by the Hudson River to the east. VOCs detected in MW-107 are not fully bounded to the south, although concentrations diminish to trace levels in the downgradient direction monitored at MW-106 and MW-109.

Concentrations of VOCs were lower in groundwater in the northern portion of the study area, which includes wells located on the Lustrelon property. Chlorinated ethane and ethene constituents, such as chloroethane, 1,1-dichloroethane, and trichloroethene, were the primary VOC constituents detected in groundwater in this area (MW-12, MW-29, MW-30, MW-9, MW-23, MW-14A, and MW-17A). Although a source of chlorinated VOCs in groundwater was not identified during the RSI, these results indicate the presence of a separate plume of chlorinated constituents, which are commonly used during metal processing, on the Lustrelon property. These VOC concentrations are bounded to the northwest and south by non-detectable concentrations of VOCs and by the Hudson River to the east; VOCs are not bounded to the north and west because additional samples were not obtained in these directions.

6.5.2 Extent of SVOCs in Groundwater

Total SVOC and total PAH results for RSI groundwater samples are presented in Figure 6-12. This figure shows that SVOCs were detected in groundwater throughout the southern portion of the study area on the Celotex, Quanta, and Lustrelon properties. PAH constituents were the primary SVOCs that were detected in groundwater at the site, although significant concentrations of phenols were also detected in samples from MW-102, MW-103, and MW-107. This finding is consistent other findings during the RSI, which indicated that coal tar products were present in soil on these properties, and PAHs are primary constituents in coal tar. Some types of coal tar and coal tar products also contain significant amounts of phenolic constituents (Hayes, et al., 1996). The highest concentrations of SVOCs (114 mg/l) and PAHs (30.9 mg/l) were detected in MW-102 along the southern edge of the Quanta property. Lower SVOC concentrations, ranging from 1.9 to 22.3 mg/l (PAHs from 1.6 to 16.0 mg/l), were detected in wells located to the north, south, and east of MW-103. This distribution of SVOCs and PAHs indicates the presence of a plume of these constituents in groundwater at the site, especially in areas where significant concentrations of these constituents were detected in soils or where product was encountered. Significantly lower SVOC concentrations were detected in MW-101 and MW-108, which are located northwest and southwest of

MW-102, respectively, and in MW-31, which is screened below the confining unit. Groundwater samples obtained further north, from wells on the Celotex and Lustrelon properties contained low to non-detectable concentrations of SVOCs.

The decreasing PAH concentrations detected in wells downgradient from MW-102 (e.g., MW-103 and MW-7) indicate that PAHs are not very mobile in groundwater in this area.

6.5.3 Extent of PCBs in Groundwater

PCB concentrations were analyzed for four groundwater samples during the RSI per the USEPA-approved scope of work in the Site Operations Plan; results from these analyses are presented on Figure 6-13. This figure shows that PCBs were not detected in groundwater at the site.

6.5.4 Extent of Metals in Groundwater

The results from analyses of arsenic in groundwater, which are presented on Figure 6-10, indicate that arsenic was detected in 19 of 27 groundwater samples. The highest concentrations of arsenic were present in MW-107, MW-103, MW-21, MW-1, MW-31, and MW-20, which are located in the southern portion of the site on the Celotex, Quanta, and Lustrelon properties; and MW-6, which is located in the south western portion of the Celotex property. Arsenic concentrations in these wells ranged from 1.3 to 20.9 mg/l. These arsenic concentrations were bounded to the north and east by groundwater samples containing lower and/or non-detectable arsenic concentrations, but were not completely bounded to the south and west. Arsenic concentrations decreased consistently in the downgradient direction (east toward the river), which indicates that arsenic is not very mobile in ground water in the study area. These higher arsenic concentrations in groundwater indicate that arsenic is present in a dissolved form under the geochemical conditions present in groundwater at the site.

Chemical thermodynamic modeling was performed using the Facility for Analysis of Chemical Thermodynamics (FACT) [Bale et al., 1996] to evaluate arsenic speciation in groundwater at the site. Figure 6-14 presents the results of the arsenic speciation evaluation. This figure provides an Eh-pH (Pourbaix) diagram that shows the predominant arsenic species that are present under a range of pH values and redox conditions. This figure was prepared using an arsenic concentration of 2.8 x 10^{-4} moles/l, which is equivalant to the highest arsenic concentration observed in groundwater at the site (20.9 mg/l). The wells at the site containing the highest concentrations of arsenic are plotted on the diagram according to the pH and Eh measured in the field, which are shown for all wells sampled during the RSI on figures 6-15 and 6-16, respectively. Figure 6-14 shows that the dominant form of arsenic in these wells is H_3AsO_3 (aq), which is a dissolved species known as arsenite. Arsenite species can be removed from solution by absorption to mineral surfaces or by precipitation with sulfide compounds [Evanko and Dzombak, 1997]. Arsenic speciation in the downgradient wells (MW-109, MW-106, MW-7 and MW-2) is shown in Figure 6-17. As shown on this figure, arsenite species are again expected to be dominant in MW-106, MW-109, and MW-2. The much lower concentrations of arsenic observed in these downgradient wells indicates that arsenic is being attenuated, probably as a result of the arsenite species sorbing to aquifer material and/or precipitating with sulfides as groundwater is transported from the upgradient wells that contain much higher concentrations of arsenic. Arsenic speciation in the presence of sulfides is shown on Figure 6-18. The pH and redox conditions observed in MW-7 indicate that arsenic also may be removed from solution by precipitation as arsenic or arsenic sulfide solids. These phenomena explain the low mobility of arsenic in groundwater at the site. Lower arsenic concentrations in other areas of the site that contain groundwater under reducing conditions can be explained by precipitation of arsenic sulfide solids if sufficient sulfide is present. Extreme reducing conditions that are amenable to the formation of arsine (AsH_3), a gaseous form of arsenic, which can be biotransformed to volatile and toxic methylated deriviations of arsine, were not observed in groundwater at the site (Figure 6-14).

Chromium was detected in 8 of 27 groundwater samples at concentrations up to 0.034 mg/l; results from chromium analyses in groundwater are presented on Figure 6-19. The extent of chromium in groundwater was limited to the southern portion of the site in wells located on the Celotex, Quanta and Lustrelon properties. These results are consistent with soil sampling results, which indicated that elevated metals concentrations resulted from minor releases and did not cause widespread contamination at the site. The highest concentrations of chromium were detected in

MW-31, MW-20, and MW-106. MW-31 and MW-20 contained groundwater under oxidizing conditions, whereas MW-106 contained groundwater under reducing conditions (Figure 6-16). Figure 6-20 presents a Pourbaix diagram for chromium at 6.5 x 10^{-7} moles/l, which is equivalent to the maximum concentration observed in groundwater at the site, 0.034 mg/l. As shown on this figure, under the conditions observed in MW-31 and MW-20, $Cr(OH)^{2-}$ is the dominant chromium species in these wells. This form of chromium demonstrates a significantly lower mobility than more oxided forms, such as $HCrO_4^-$, due to sorption to clay and oxide minerals below pH 5 and due to low solubility above pH 5 that results in the precipitation of chromium hydroxide solid, $Cr(OH)_3(s)$. Under the conditions observed in MW-106, chromium hydroxide solid is expected to precipitate. The equilibrium chromium concentration of 0.2 mg/l expected in the presence of this solid at the pH value measured in this well (6.79) is lower than the meaured chromium concentration of 0.025 mg/l. This may be due to measurement of chromium hydroxide particulates in the groundwater or sorbed chromium species. These mechanisms explain the low mobility of chromium in groundwater at the site, which is evidenced by lower or non-detectable concentrations in downgradient wells.

As shown on Figure 6-21, lead was detected in 5 of 27 groundwater samples at concentrations up to 0.058 mg/l. Similar to chromium, the extent of lead in groundwater at the site was limited to the southern portion of the site, which indicated that lead contamination at the site was limited. Lead was not detected in downgradient wells along the edge of the river with the exception of MW-109, which contained 0.035 mg/l of lead. Figure 6-22 presents a Pourbaix diagram for lead at 2.8 x 10^{-7} moles/l, which is equivalent to the maximum concentration observed in groundwater at the site, 0.058 mg/l. As shown in this figure, the dominant forms of lead in groundwater at the site are Pb^{2+} and $PbOH^-$, both of which represent soluble lead species. These forms of lead are not very mobile in groundwater above pH 4 due to sorption to mineral surfaces and precipitation of lead hydroxy or lead carbonate solids [Evanko and Dzombak, 1997]. These mechanisms explain the low mobility of lead in groundwater at the site, as evidenced by the non-detectable concentrations of lead measured in downgradient wells.

7. CONCLUSIONS

This RSI was conducted to achieve the following response action objectives (RAOs):

- delineate product (source) areas in the subsurface soils which may lead to the sheen development;
- gain an understanding of the mechanisms by which the sheen develops and migrates;
- determine the extent of the "site" based on the delineation of the nature and extent of soil, sediment and groundwater contamination from roofing plant and waste oil recycling operations at the Quanta property (with a focus on grossly contaminated media with a potential for off-site migration); and
- locate possible routes of migration to bordering properties and the Hudson River.

The study area for the RSI included the Quanta property and surrounding properties as well as the Hudson River sediment adjacent to these properties. The extent of product was evaluated using the ROST™ technology, soil borings, test pit excavation and analysis of PAH constituents in soil and sediment in the vicinity of the Quanta property. The nature and extent of soil, sediment, and groundwater contamination was evaluated in the study area by sampling and analysis for COIs, which included VOCs, SVOCs, PAHs, PCBs, arsenic, chromium, and lead. Possible routes of migration were evaluated by conducting a geophysical investigation to locate subsurface pipes on or in the vicinity of the Quanta property, and by digging test trenches in the vicinity of suspected conduit locations.

Results from the RSI were combined with results from previous investigations performed within the study area to provide a comprehensive evaluation of the RAOs within the study area.

Soil

Soil samples were collected during the RSI to supplement existing information and delineate the extent of COIs (PAHs, arsenic, chromium, and lead) in soil. Results from the RSI and previous investigations indicate that the extent of COIs in the soil were fully delineated. Arsenic, chromium and lead were detected at scattered locations across the site, which indicates that metals contamination is limited to releases in localized areas and is not widespread. PCB detections were limited to soils in the vicinity of former transformer locations. PAHs were detected throughout soils at the site, but elevated concentrations were limited to source areas. A significant amount of soil data from the Celotex and Lustrelon properties were obtained during previous investigations. These properties are being managed by NJEPD and soils from these areas may have already been remediated.

Sediment

Sediment samples were collected during the RSI to delineate the extent of COIs including PAHs, PCB, arsenic, chromium, and lead, in Hudson River sediments adjacent to the Quanta property and neighboring properties. Results from the RSI indicate that the extent of impact from the study area on sediments was fully delineated. Arsenic, chromium, and lead were detected in sediment throughout the study area, and the distribution of these metals in sediment indicates that the upland soils are not a discernable source of metals in sediment. Similar to metals, PCBs were detected in sediment throughout the study area and this wide distribution indicates that the PCBs in sediment are not attributable to upland soils in the study area. PAHs were detected in sediment across the study area, with the highest PAH concentrations associated with source areas that were identified during the RSI.

Groundwater

Groundwater samples were collected during the RSI and were analyzed for VOCs, SVOCs, PCBs, arsenic, chromium, and lead in order to delineate the nature and extent of these constituents in groundwater in the study area. Results from the RSI indicated that arsenic, chromium, and lead were present in a localized area and transport of these constituents downgradient of this area is limited by geochemical conditions at the site.

PCBs were not detected in groundwater in the study area. VOCs were detected in groundwater throughout the study area, but results indicated that two separate plumes of VOCs exist. The first plume contains BTEX constituents in the southern portion of the study area in the vicinity of the Quanta and Celotex properties and south of the Quanta property. The second plume comprises chlorinated ethane constituents and is limited to the Lustrelon property in the northern portion of the study area. SVOCs were detected in groundwater primarily in the southern portion of the study area on the Quanta and Celotex properties and south of the Quanta property. This highest SVOC concentrations were detected in source areas identified during the RSI comprised of PAH constituents as well as phenolic constituents, which are known components of coal tar. The PAH concentrations in groundwater are substantially lower downgradient of the source area than in the source area. Also, the COIs concentrations are a order of magnitude lower in deeper wells than in shallower wells. Thus the data demonstrates there is neither a shallow or deep plume of grossly contaminated groundwater discharging into the Hudson River, nor migrating to other properties.

Extent of Product

Results from the RSI indicate that the extent of product within the upland area and in the river sediment is delineated. The product is the source material for soil, sediment, groundwater PAH contamination and sheen development. The presence of sheen is the main reason for the implementation of this AOC and the focus of this RSI.

The product extent is limited vertically in the upland setting by the presence of lower permeable native soil underlying the fill at an approximate depth of 12 ft. The product varies in viscosity from solid hard non-mobile product to thick oil-like product. Oil like product has collected in monitoring wells on the Quanta property and is present adjacent to the bulkhead. The product in the river sediment consists of tar and oil-like product found in thin lenses within the sediment. These lenses are more prevalent and closer to the top of the sediment near the bulkhead and become deeper farther off-shore.

The sheen appears to develop from both the upland source area and the sediment source area. Product in the fill adjacent to the bulkhead is flowable and at a higher elevation then the river sediments. This product can flow to the river through through the fill material which has "conduits"or zones of higher permeability due to abundance of debris or poor compaction. The sheen has been observed to be more prevalent adjacent to the Quanta-Celotex property line adjacent to the bulkhead possibly indicating conduit in this area. Lenses of product within the river silt are more prevalent and closer to the sediment surface in the area of sheen (area contained within the boom). Product within the river sediment can flow to the surface of the sediment in this area. Also, EPA has reported areas of sheen sporadically developing outside the boom area. Product lenses are present atdepths of approximately 4 to 22 ft below the sediment line beyond the boom and upwelling of product from shallow product zones could produce, via gas bubble migration, these sporadic sheens.

Extent of Site

The AOC states that the extent of the site will be determined by the RSI and include the Quanta Resources Property and neighboring properties as appropriate based on the extent of contamination from coal tar roofing plant and waste oil recycling operations at the Quanta Property The study area included from North to South: Lustrelon Property, Celotex Property, Quanta Property, Spencer Kellogg Property and Lever Brothers Property. Based on knowledge of industrial operations and distribution of chemical constituents, it is concluded that the Site is bounded by the extent of contamination with the source area (i.e., coal tar product) occuring on the Quanta Property. This includes the Quanta Property, southeastern portion of the Celotex Property, Spencer Kellogg property and North portion of Lever Brothers. The extent of contamination is similar to the extent of heavy-end product presented in Figure 5-1 with dissolved-phase (groundwater) and absorbed-phase (soils) contamination present slightly beyond the extent of heavy-end product. Areas of contamination beyond this area have source areas unrelated to roofing plant and waste oil recycling operations at the Quanta Property, and therefore should not be included as part of the Site (e.g., arsenic contamination).

8. REFERENCES

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TABLES

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	98313-01	98313-02	98313-03	98313-04	98313-05	98313-06	98313-07	98314-01	98314-02	98315-01	98315-02	98315-03	98315-04	98315-05	98315-06	98315-07	98320-01	98320-02	98320-03
Location	B-2	T-1	T-1	T-1	T-2	T-2	T-3	T-3	T-3	MW-103	MW-103	MW-103	MW-103	MW-103	B-3	B-3	MW-102	MW-102	MW-102
Date Sampled	11/9/98	11/9/98	11/9/98	11/9/98	11/9/98	11/9/98	11/9/98	11/10/98	11/10/98	11/11/98	11/11/98	11/11/98	11/11/98	11/11/98	11/11/98	11/11/98	11/16/98	11/16/98	11/16/98
Sampling Depth [ft bgs]	3	3	2	3	1.5	3	12	15	1	0	3	9	13	21	13	14	13	13	21
VOCs																			
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene Chloride)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m&p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCBs																			
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	98313-01	98313-02	98313-03	98313-04	98313-05	98313-06	98313-07	98314-01	98314-02	98315-01	98315-02	98315-03	98315-04	98315-05	98315-06	98315-07	98320-01	98320-02	98320-03
Location	B-2	T-1	T-1	T-1	T-2	T-2	T-3	T-3	T-3	MW-103	MW-103	MW-103	MW-103	MW-103	B-3	B-3	MW-102	MW-102	MW-102
Date Sampled	11/9/98	11/9/98	11/9/98	11/9/98	11/9/98	11/9/98	11/9/98	11/10/98	11/10/98	11/11/98	11/11/98	11/11/98	11/11/98	11/11/98	11/11/98	11/11/98	11/16/98	11/16/98	11/16/98
Sampling Depth [ft bgs]	3	3	2	3	1.5	3	12	15	1	0	3	9	13	21	13	14	13	13	21
PAHs																			
Acenaphthene	0.052 J	640	300	190 J	1.1 J	400	3.0 J	1.0 J	0.95 J	1300	700	7.4	0.53	0.95 J	1.2 J	1.3	12.0	18.0 J	0.95
Acenaphthylene	0.070 J	160 J	19.0 J	11.0 J	0.19 J	58.0 J	0.23 J	2.1 U	2.4	180 J	62.0 J	0.81 J	0.11 J	0.27 J	5.7 U	0.12 J	4.1 J	14.0 J	0.36 J
Anthracene	0.32 J	720	550	320 J	2.6	280	4.5 J	4.0	1.9 J	850	440	5.6	0.46	0.51 J	0.36 J	1.2	9.8 J	30.0	0.88
Benzo(a)anthracene	1.0	430	1400	1900	8.6	560	4.9	12.0	4.0	520	240	5.1	0.19	0.40 U	0.67	1.3	7.1	25.0	0.45
Benzo(a)pyrene	0.86	290	1400	2500	7.8	680	3.9	11.0	7.8	370	130	4.4	0.15	0.40 U	0.34 J	0.81	6.5	21.0	0.40
Benzo(b)fluoranthene	1.0	340	1600	2800	10.0	640	4.1	12.0	8.2	460	180	4.8	0.18	0.40 U	0.42 J	1.0	5.8	18.0	0.41
Benzo(g,h,i)perylene	0.37 J	150 J	640	1400	4.8	360	1.8 J	4.9	2.2 J	200 J	88.0 J	2.4	0.095 J	4.0 U	5.7 U	0.48 J	3.9 J	12.0 J	0.20 J
Benzo(k)fluoranthene	0.47	140	640	1100	3.9	280	1.9	4.7	3.1	180	66.0	2.2	0.074	0.40 U	0.20 J	0.43	2.0	6.7	0.13
Chrysene	0.92	440 J	1400	2300	9.6	620	5.6 J	14.0	3.8	420	180 J	4.5	0.16 J	4.0 U	0.50 J	1.0 J	7.2 J	30.0	0.49
Dibenzo(a,h)anthracene	0.12	47.0 J	190	390	1.4	100	0.42 J	1.6	0.79	52.0	20.0 J	0.70	0.031 J	0.40 U	0.57 U	0.11 U	0.98 J	3.0	0.050
Fluoranthene	1.8	1200	3000	2200	18.0	1100	12.0	26.0	5.4	2200	780	13.0	0.60	0.43 J	0.94 J	3.3	16.0	54.0	1.9
Fluorene	0.099 J	770	220	110 J	0.73 J	190	3.0 J	1.4 J	1.2 J	1300	680	10.0	0.63	1.0 J	0.42 J	1.2	13.0	22.0	1.0
Indeno(1,2,3-cd)pyrene	0.44	160	780	1500	4.9	360	1.9	5.2	2.7	230	85.0	2.1	0.10	0.40 U	0.57 U	0.50	3.4	9.7	0.18
Naphthalene	0.071 J	5300	79.0 J	100 J	0.29 J	360	100	6.9	0.77 J	900	3800	47.0	6.7	33.0	41.0	13.0	110	230	9.2
Phenanthrene	1.0	2500	1800	1200	11.0	950	17.0	23.0	2.5	4100	1800	29.0	1.6	2.4 J	1.0 J	5.2	41.0	110	4.0
Pyrene	1.5	890	2400	2200	16.0	900	10.0	23.0	5.4	1400	560	10.0	0.47	0.34 J	1.0 J	3.1	20.0	62.0	1.5
Total PAHs	*10.1*	*14200*	*16400*	*20200*	*101*	*7840*	*174*	*151*	*53.1*	*14700*	*9810*	*149*	*12.1*	*38.9*	*48.1*	*33.9*	*263*	*665*	*22.1*
Metals																			
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	2.6 B	20.5	32.8	37.2	12.1	20.8	2.6 B	1.6 U	12.6	17.0	8.2	67.2	13.1	27.0	10.5	10.3	4.3	5.0	6.0
Barium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	14.7	9.3	7.1	6.3 B	4.1 B	13.0	19.2	16.4	5.4	4.8	5.5	12.2	10.1	16.2	26.6	27.5	11.3	12.3	10.7
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	32.7	378	351	553	13.6	138	7.0	3.4	61.7	4540	108	13.2	4.5	12.4	62.4	61.2	6.8	7.1	5.2
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	98320-04	98321-01	98321-02	98323-03	98323-04	98324-01	98324-02	98324-03	98326-01	98326-02	98326-03	98326-04	99169-01	99169-02	99172-01	99172-02	99172-03	99172-04	99172-05
Location	B-4	MW-101	MW-101	T-4	T-4	T-5	T-5	T-6	T-8	T-8	CPT-24	CPT-21	MW-105	MW-105	MW-108	MW-108	MW-106	MW-106	MW-106
Date Sampled	11/16/98	11/17/98	11/17/98	11/19/98	11/19/98	11/20/98	11/20/98	11/20/98	11/22/98	11/22/98	11/22/98	11/22/98	6/18/99	6/18/99	6/21/99	6/21/99	6/21/99	6/21/99	6/21/99
Sampling Depth [ft bgs]	31	6	13	10	15.5	8	2	6	2	2	2.5	4.5	5	19	2	11	9	14	18
VOCs																			
1,1,1-Trichloroethane	--	--	--	14.0 U	--	--	--	0.88 U	46.0 U	7.4 U	0.67 U	0.78 U	15.0 U	0.91 U	0.73 U	0.88 U	1.3 U	1.4 U	59.0 U
1,1,2,2-Tetrachloroethane	--	--	--	2.7 U	--	--	--	0.18 U	9.1 U	1.5 U	0.13 U	0.16 U	2.9 U	0.18 U	0.15 U	0.18 U	0.26 U	0.28 U	12.0 U
1,1,2-Trichloroethane	--	--	--	8.2 U	--	--	--	0.53 U	27.0 U	4.4 U	0.40 U	0.47 U	8.8 U	0.54 U	0.44 U	0.53 U	0.78 U	0.84 U	35.0 U
1,1-Dichloroethane	--	--	--	14.0 U	--	--	--	0.88 U	46.0 U	7.4 U	0.67 U	0.78 U	15.0 U	0.91 U	0.73 U	0.88 U	1.3 U	1.4 U	59.0 U
1,1-Dichloroethene	--	--	--	5.5 U	--	--	--	0.35 U	18.0 U	3.0 U	0.27 U	0.31 U	5.8 U	0.36 U	0.29 U	0.35 U	0.52 U	0.56 U	24.0 U
1,2-Dichloroethane	--	--	--	5.5 U	--	--	--	0.35 U	18.0 U	3.0 U	0.27 U	0.31 U	5.8 U	0.36 U	0.29 U	0.35 U	0.52 U	0.56 U	24.0 U
1,2-Dichloropropane	--	--	--	2.7 U	--	--	--	0.18 U	9.1 U	1.5 U	0.13 U	0.16 U	2.9 U	0.18 U	0.15 U	0.18 U	0.26 U	0.28 U	12.0 U
2-Butanone (MEK)	--	--	--	14.0 U	--	--	--	0.88 U	46.0 U	7.4 U	0.67 U	0.78 U	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	14.0 U	--	--	--	0.88 U	46.0 U	7.4 U	0.67 U	0.78 U	15.0 U	0.91 U	0.73 U	0.88 U	1.3 U	1.4 U	59.0 U
4-Methyl-2-Pentanone	--	--	--	14.0 U	--	--	--	0.88 U	46.0 U	7.4 U	0.67 U	0.78 U	15.0 U	0.91 U	0.73 U	0.88 U	1.3 U	1.4 U	59.0 U
Acetone	--	--	--	14.0 U	--	--	--	0.88 U	46.0 U	7.4 U	0.67 U	0.78 U	15.0 U	0.91 U	0.73 U	0.88 U	1.3 U	1.4 U	59.0 U
Benzene	--	--	--	2.4 J	--	--	--	0.18 U	9.1 U	1.7	0.13 U	0.16 U	2.9 U	0.18 U	0.15 U	0.18 U	0.15 J	0.28 U	12.0 U
Bromodichloromethane	--	--	--	2.7 U	--	--	--	0.18 U	9.1 U	1.5 U	0.13 U	0.16 U	2.9 U	0.18 U	0.15 U	0.18 U	0.26 U	0.28 U	12.0 U
Bromoform	--	--	--	11.0 U	--	--	--	0.70 U	36.0 U	5.9 U	0.53 U	0.62 U	12.0 U	0.73 U	0.58 U	0.71 U	1.0 U	1.1 U	47.0 U
Bromomethane	--	--	--	14.0 U	--	--	--	0.88 U	46.0 U	7.4 U	0.67 U	0.78 U	5.8 U	0.36 U	0.29 U	0.35 U	0.52 U	0.56 U	24.0 U
Carbon Disulfide	--	--	--	14.0 U	--	--	--	0.88 U	46.0 U	7.4 U	0.67 U	0.78 U	15.0 U	0.91 U	0.73 U	0.88 U	1.3 U	1.4 U	59.0 U
Carbon Tetrachloride	--	--	--	5.5 U	--	--	--	0.35 U	18.0 U	3.0 U	0.27 U	0.31 U	5.8 U	0.36 U	0.29 U	0.35 U	0.52 U	0.56 U	24.0 U
Chlorobenzene	--	--	--	14.0 U	--	--	--	0.88 U	46.0 U	7.4 U	0.67 U	0.78 U	15.0 U	0.91 U	0.73 U	0.88 U	1.3 U	1.4 U	59.0 U
Chloroethane	--	--	--	14.0 U	--	--	--	0.88 U	46.0 U	7.4 U	0.67 U	0.78 U	5.8 U	0.36 U	0.29 U	0.35 U	0.52 U	0.56 U	24.0 U
Chloroform	--	--	--	14.0 U	--	--	--	0.88 U	46.0 U	7.4 U	0.67 U	0.78 U	15.0 U	0.91 U	0.73 U	0.88 U	1.3 U	1.4 U	59.0 U
Chloromethane	--	--	--	14.0 U	--	--	--	0.88 U	46.0 U	7.4 U	0.67 U	0.78 U	5.8 U	0.36 U	0.29 U	0.35 U	0.52 U	0.56 U	24.0 U
cis-1,2-Dichloroethene	--	--	--	14.0 U	--	--	--	0.88 U	46.0 U	7.4 U	0.67 U	0.78 U	15.0 U	0.91 U	0.73 U	0.88 U	1.3 U	1.4 U	59.0 U
cis-1,3-Dichloropropene	--	--	--	14.0 U	--	--	--	0.88 U	46.0 U	7.4 U	0.67 U	0.78 U	15.0 U	0.91 U	0.73 U	0.88 U	1.3 U	1.4 U	59.0 U
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	14.0 U	--	--	--	0.88 U	46.0 U	7.4 U	0.67 U	0.78 U	15.0 U	0.91 U	0.73 U	0.88 U	1.3 U	1.4 U	59.0 U
Dichloromethane (Methylene Chloride)	--	--	--	8.2 U	--	--	--	0.53 U	27.0 U	4.4 U	0.40 U	0.47 U	8.8 U	0.54 U	0.44 U	0.53 U	0.78 U	0.84 U	35.0 U
Ethyl benzene	--	--	--	190	--	--	--	0.70 U	19.0 J	32.0	0.14 J	0.30 J	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	4.1 U	--	--	--	0.080 U	19.0 U	9.8 U	0.080 U	0.22 U	--	--	--	--	--	--	--
Tetrachloroethene	--	--	--	2.7 U	--	--	--	3.2	9.1 U	1.5 U	0.13 U	0.16 U	2.9 U	0.18 U	0.15 U	0.18 U	0.26 U	0.28 U	12.0 U
Toluene	--	--	--	14.0 U	--	--	--	0.88 U	5.4 J	2.8 J	0.67 U	1.2	3.6 J	0.91 U	0.73 U	0.88 U	0.96 J	1.4 U	14.0 J
trans-1,2-dichloroethene	--	--	--	14.0 U	--	--	--	0.88 U	46.0 U	7.4 U	0.67 U	0.78 U	15.0 U	0.91 U	0.73 U	0.88 U	1.3 U	1.4 U	59.0 U
trans-1,3-Dichloropropene	--	--	--	14.0 U	--	--	--	0.88 U	46.0 U	7.4 U	0.67 U	0.78 U	15.0 U	0.91 U	0.73 U	0.88 U	1.3 U	1.4 U	59.0 U
Trichloroethene	--	--	--	2.7 U	--	--	--	0.18 U	9.1 U	1.5 U	0.13 U	0.16 U	2.9 U	0.18 U	0.15 U	0.18 U	0.26 U	0.28 U	12.0 U
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	14.0 U	--	--	--	0.88 U	46.0 U	7.4 U	0.67 U	0.78 U	5.8 U	0.36 U	0.29 U	0.35 U	0.52 U	0.56 U	24.0 U
m&p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	200	--	--	--	0.11 J	76.0	150	0.27 J	1.6	--	--	--	--	--	--	--
Total VOCs	--	--	--	392	--	--	--	3.31	100	187	0.41	3.1	3.6	0	0	0	1.11	0	14
PCBs																			
Aroclor-1016	--	--	--	0.083 U	0.076 U	--	--	0.080 U	0.078 U	0.079 U	0.081 U	0.088 U	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	0.083 U	0.076 U	--	--	0.080 U	0.078 U	0.079 U	0.081 U	0.088 U	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	0.083 U	0.076 U	--	--	0.080 U	0.078 U	0.079 U	0.081 U	0.088 U	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	0.083 U	0.076 U	--	--	0.080 U	0.078 U	0.079 U	0.081 U	0.088 U	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	0.083 U	0.076 U	--	--	0.080 U	0.078 U	0.079 U	0.081 U	0.088 U	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	0.083 U	0.076 U	--	--	0.080 U	0.078 U	0.14	0.081 U	0.088 U	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	0.083 U	0.076 U	--	--	0.080 U	0.078 U	0.079 U	0.081 U	0.088 U	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	0.083 U	0.076 U	--	--	0.080 U	0.078 U	0.079 U	0.081 U	0.088 U	--	--	--	--	--	--	--
Total PCB	--	--	--	ND	ND	--	--	ND	ND	0.14	ND	ND	--	--	--	--	--	--	--

SOIL SAMPLING RE[illegible]S [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	98320-04	98321-01	98321-02	98323-03	98323-04	98324-01	98324-02	98324-03	98326-01	98326-02	98326-03	98326-04	99169-01	99169-02	99172-01	99172-02	99172-03	99172-04	99172-05
Location	B-4	MW-101	MW-101	T-4	T-4	T-5	T-5	T-6	T-8	T-8	CPT-24	CPT-21	MW-105	MW-105	MW-108	MW-108	MW-106	MW-106	MW-106
Date Sampled	11/16/98	11/17/98	11/17/98	11/19/98	11/19/98	11/20/98	11/20/98	11/20/98	11/22/98	11/22/98	11/22/98	11/22/98	6/18/99	6/18/99	6/21/99	6/21/99	6/21/99	6/21/99	6/21/99
Sampling Depth [ft bgs]	31	6	13	10	15.5	8	2	6	2	2	2.5	4.5	5	19	2	11	9	14	18
PAHs																			
Acenaphthene	0.53	40.0	0.031 J	1.4 J	7.9 J	0.078 J	78.0	0.28 J	1500	470	1.3	4.3	1200	0.56 J	0.22 J	0.73 U	1.3 J	0.63	350
Acenaphthylene	0.30 J	4.7 J	0.36 U	41.0 U	1.3 J	0.065 J	5.8 J	0.42 J	32.0 J	35.0 J	0.51 J	0.42 J	260 J	0.085 J	0.24 J	0.73 U	0.58 J	0.18 J	25.0 J
Anthracene	0.59	57.0	0.040 J	1.2 J	7.4 J	0.20 J	70.0	0.68 J	730	480	1.4	3.0	1400	0.56 J	0.68 J	0.73 U	1.8	1.2	260
Benzo(a)anthracene	0.37	56.0	0.054	2.5 J	5.7	1.1	120	3.4	290	310	2.3	5.5	2100	0.42	2.6	0.033 J	1.5	2.0	120
Benzo(a)pyrene	0.29	52.0	0.037	4.1 U	4.0	1.2	130	3.8	200	150	2.6	4.7	2200	0.38	2.8	0.015 J	0.90	1.9	100
Benzo(b)fluoranthene	0.30	54.0	0.044	1.2 J	4.5	1.7	150	5.3	240	190	3.5	5.0	2400	0.42	4.5	0.073 U	1.5	2.0	100
Benzo(g,h,i)perylene	0.12 J	29.0 J	0.013 J	41.0 U	2.3 J	0.52	58.0	1.2	88.0 J	52.0 J	0.78 J	2.5	1300	0.16 J	0.63 J	0.73 U	0.37 J	1.0	45.0 J
Benzo(k)fluoranthene	0.11	22.0	0.014 J	4.1 U	2.1	0.64	62.0	2.1	88.0	76.0	1.2	1.7	1100	0.19	1.4	0.073 U	0.64	0.90	49.0
Chrysene	0.39 J	55.0	0.042 J	1.6 J	4.6 J	1.2	140	4.1	260	340	2.8	6.3	2200	0.45 J	2.2	0.016 J	2.0	2.0	110 J
Dibenzo(a,h)anthracene	0.032 J	7.4	0.036 U	4.1 U	0.57 J	0.16	16.0	0.34	27.0	20.0	0.29	1.1	--	--	--	--	--	--	--
Fluoranthene	1.1	150	0.10 J	5.0 J	20.0	2.5	310	8.2	1400	840	4.9	11.0	3600	0.92	5.0	0.041 J	5.1	3.8	380
Fluorene	0.64	35.0 J	0.027 J	1.9 J	13.0	0.065 J	66.0	0.20 J	1400	520	1.3	0.94 J	1400	0.60	0.21 J	0.73 U	1.2 J	0.51 J	310
Indeno(1,2,3-cd)pyrene	0.14	28.0	0.016 J	4.1 U	2.5	0.63	62.0	1.5	91.0	64.0	0.94	1.8	1300	0.18	0.70	0.073 U	0.36	1.1	51.0
Naphthalene	5.1	74.0	0.041 J	81.0	100	0.054 J	47.0	0.27 J	3200	1300	5.2	1.2 J	3400	1.4	0.13 J	0.73 U	3.6	0.79	1900
Phenanthrene	2.3	200	0.14 J	7.0 J	44.0	0.69	290	4.4	3200	1400	6.5	9.7	4400	1.7	2.6	0.045 J	5.4	3.7	970
Pyrene	0.95	120	0.094 J	4.3 J	15.0	1.8	210	7.4	1000	710	5.1	11.0	3300	0.90	5.8	0.043 J	4.3	3.4	310
Total PAHs	13.3	984	0.693	107	235	12.6	1810	43.6	13700	6960	40.6	70.2	31600	8.93	29.7	0.193	30.6	25.1	5080
Metals																			
Aluminum	--	--	--	1160	--	--	--	4770	1950	8330	7490	4050	--	--	--	--	--	--	--
Antimony	--	--	--	1.1 U	--	--	--	35.7	2.6	1.3 B	1.1 B	1.2 U	--	--	--	--	--	--	--
Arsenic	6.5	20.5	1.8	161	1.2	528	14.7	236	19.9	14.2	15.1	57.7	53.7	8.7	2.1 B	3.2 U	28.5	32.4	255
Barium	--	--	--	80.8	--	--	--	175	66.2	113	118	196	--	--	--	--	--	--	--
Beryllium	--	--	--	0.060 B	--	--	--	0.28 B	0.22 B	0.47	0.48	0.45 B	--	--	--	--	--	--	--
Cadmium	--	--	--	0.099 U	--	--	--	0.68 B	0.30 B	2.7	2.8	0.38 B	--	--	--	--	--	--	--
Calcium	--	--	--	1060 B	--	--	--	6280	6210	49200	48600	7860	--	--	--	--	--	--	--
Chromium	24.1	30.6	9.1	14.1	2.7	9.2	46.7	14.1	8.4	35.0	38.1	16.9	17.3	25.7	17.6	24.8	20.4	12.1	676
Cobalt	--	--	--	0.46 B	--	--	--	4.1 B	4.6 B	6.3 B	5.2 B	15.3	--	--	--	--	--	--	--
Copper	--	--	--	18.3	--	--	--	414	87.4	56.4	59.9	171	--	--	--	--	--	--	--
Iron	--	--	--	22100	--	--	--	22800	11600	14500	13700	46800	--	--	--	--	--	--	--
Lead	15.4	124	5.3	108	6.1	1940	155	10800	164	68.4	86.5	342	492	41.5	58.2	11.4	108	75.6	575
Magnesium	--	--	--	226 B	--	--	--	1000 B	738 B	4300	3800	2980	--	--	--	--	--	--	--
Manganese	--	--	--	20.7	--	--	--	102	62.8	187	183	243	--	--	--	--	--	--	--
Mercury	--	--	--	0.27	--	--	--	3.6	0.41	0.15	0.17	0.93	--	--	--	--	--	--	--
Nickel	--	--	--	1.7 B	--	--	--	10.9	13.9	51.3	56.0	23.7	--	--	--	--	--	--	--
Potassium	--	--	--	2050	--	--	--	779 B	130 B	663 B	561 B	347 B	--	--	--	--	--	--	--
Selenium	--	--	--	1.0 U	--	--	--	1.3	1.2	0.99 U	1.0 U	1.2 B	--	--	--	--	--	--	--
Silver	--	--	--	0.35 U	--	--	--	1.8 B	0.33 U	0.33 U	0.34 U	0.37 U	--	--	--	--	--	--	--
Sodium	--	--	--	318 B	--	--	--	544 B	116 B	1490	1430	621 B	--	--	--	--	--	--	--
Thallium	--	--	--	2.4 B	--	--	--	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	--	--	--	--	--	--	--
Vanadium	--	--	--	33.4	--	--	--	65.6	25.0	64.7	75.9	26.9	--	--	--	--	--	--	--
Zinc	--	--	--	7.6	--	--	--	324	145	609	593	264	--	--	--	--	--	--	--

Sample ID	99172-06	99172-07	99173-01	99173-02	99174-01	99174-02	99174-03	99174-04	99175-01	99175-02	99175-03	B-1A-1	B-1A-2	B-1B-1	B-1B-2	B-1C-1	B-1C-2	B-2A-1	B-2A-2	B-2B-1
Location	MW-106	TP-10	MW-109	TP-12	MW-109	MW-107	MW-107	MW-107	MW-110	MW-110	MW-110	B-1A	B-1A	B-1B	B-1B	B-1C	B-1C	B-2A	B-2A	B-2B
Date Sampled	6/21/99	6/21/99	6/22/99	6/22/99	6/23/99	6/23/99	6/23/99	6/23/99	6/24/99	6/24/99	6/24/99	2/28/97	2/28/97	2/28/97	2/28/97	2/28/97	2/28/97	2/27/97	2/27/97	2/27/97
Sampling Depth [ft bgs]	23	18	7	10	20	13	17	23	12	20	24	1	4.5	1	5.5	1	6.5	8.5	12.5	9
VOCs																				
1,1,1-Trichloroethane	0.97 U	7.9 U	0.65 U	0.47 U	0.94 U	0.63 U	0.60 U	0.58 U	0.66 U	0.66 U	0.55 U	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	0.19 U	1.6 U	0.13 U	0.094 U	0.19 U	0.12 U	0.12 U	0.12 U	0.13 U	0.13 U	0.11 U	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	0.58 U	4.7 U	0.39 U	0.28 U	0.56 U	0.38 U	0.36 U	0.35 U	0.40 U	0.39 U	0.33 U	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	0.97 U	7.9 U	0.65 U	0.47 U	0.94 U	0.63 U	0.60 U	0.58 U	0.66 U	0.66 U	0.55 U	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	0.39 U	3.1 U	0.26 U	0.19 U	0.37 U	0.25 U	0.24 U	0.23 U	0.26 U	0.26 U	0.22 U	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	0.39 U	3.1 U	0.26 U	0.19 U	0.37 U	0.25 U	0.24 U	0.23 U	0.26 U	0.26 U	0.22 U	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	0.19 U	1.6 U	0.13 U	0.094 U	0.19 U	0.12 U	0.12 U	0.12 U	0.13 U	0.13 U	0.11 U	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	0.97 U	7.9 U	0.65 U	0.47 U	0.94 U	0.63 U	0.60 U	0.58 U	0.66 U	0.66 U	0.55 U	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	0.97 U	7.9 U	0.65 U	0.47 U	0.94 U	0.63 U	0.60 U	0.58 U	0.66 U	0.66 U	0.55 U	--	--	--	--	--	--	--	--	--
Acetone	0.97 U	7.9 U	0.65 U	0.47 U	0.94 U	0.77	0.66	0.58 U	0.67	0.86	0.55 U	--	--	--	--	--	--	--	--	--
Benzene	0.19 U	17.0	0.13 U	0.094 U	0.19 U	0.12 U	0.47	1.5	0.20	0.13 U	0.11 U	--	--	--	--	--	--	--	--	--
Bromodichloromethane	0.19 U	1.6 U	0.13 U	0.094 U	0.19 U	0.12 U	0.12 U	0.12 U	0.13 U	0.13 U	0.11 U	--	--	--	--	--	--	--	--	--
Bromoform	0.77 U	6.3 U	0.52 U	0.38 U	0.75 U	0.50 U	0.48 U	0.47 U	0.53 U	0.53 U	0.44 U	--	--	--	--	--	--	--	--	--
Bromomethane	0.39 U	3.1 U	0.26 U	0.19 U	0.37 U	0.25 U	0.24 U	0.23 U	0.26 U	0.26 U	0.22 U	--	--	--	--	--	--	--	--	--
Carbon Disulfide	0.97 U	7.9 U	0.65 U	0.47 U	0.94 U	0.63 U	0.60 U	0.58 U	0.66 U	0.66 U	0.55 U	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	0.39 U	3.1 U	0.26 U	0.19 U	0.37 U	0.25 U	0.24 U	0.23 U	0.26 U	0.26 U	0.22 U	--	--	--	--	--	--	--	--	--
Chlorobenzene	0.97 U	7.9 U	0.65 U	0.47 U	0.94 U	0.63 U	0.60 U	0.58 U	0.66 U	0.66 U	0.55 U	--	--	--	--	--	--	--	--	--
Chloroethane	0.39 U	3.1 U	0.26 U	0.19 U	0.37 U	0.25 U	0.24 U	0.23 U	0.26 U	0.26 U	0.22 U	--	--	--	--	--	--	--	--	--
Chloroform	0.97 U	7.9 U	0.65 U	0.47 U	0.94 U	0.63 U	0.60 U	0.58 U	0.66 U	0.66 U	0.55 U	--	--	--	--	--	--	--	--	--
Chloromethane	0.39 U	3.1 U	0.26 U	0.19 U	0.37 U	0.25 U	0.24 U	0.23 U	0.26 U	0.26 U	0.22 U	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	0.97 U	7.9 U	0.65 U	0.47 U	0.94 U	0.63 U	0.60 U	0.58 U	0.66 U	0.66 U	0.55 U	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	0.97 U	7.9 U	0.65 U	0.47 U	0.94 U	0.63 U	0.60 U	0.58 U	0.66 U	0.66 U	0.55 U	--	--	--	--	--	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	0.97 U	7.9 U	0.65 U	0.47 U	0.94 U	0.63 U	0.60 U	0.58 U	0.66 U	0.66 U	0.55 U	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene Chloride)	0.58 U	4.7 U	0.39 U	0.28 U	0.56 U	0.38 U	0.36 U	0.35 U	0.40 U	0.39 U	0.33 U	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	0.19 U	1.6 U	0.13 U	0.094 U	0.19 U	0.12 U	0.12 U	0.12 U	0.13 U	0.13 U	0.11 U	--	--	--	--	--	--	--	--	--
Toluene	0.97 U	20.0	0.65 U	0.47 U	0.94 U	0.63 U	0.52 J	0.90	0.66 U	0.66 U	0.55 U	--	--	--	--	--	--	--	--	--
trans-1,2-dichloroethene	0.97 U	7.9 U	0.65 U	0.47 U	0.94 U	0.63 U	0.60 U	0.58 U	0.66 U	0.66 U	0.55 U	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	0.97 U	7.9 U	0.65 U	0.47 U	0.94 U	0.63 U	0.60 U	0.58 U	0.66 U	0.66 U	0.55 U	--	--	--	--	--	--	--	--	--
Trichloroethene	0.19 U	1.6 U	0.13 U	0.094 U	0.19 U	0.12 U	0.12 U	0.12 U	0.13 U	0.13 U	0.11 U	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	0.39 U	3.1 U	0.26 U	0.19 U	0.37 U	0.25 U	0.24 U	0.23 U	0.26 U	0.26 U	0.22 U	--	--	--	--	--	--	--	--	--
m&p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	0	37	0	0	0	0.77	1.65	2.4	0.87	0.86	0	--	--	--	--	--	--	--	--	--
PCBs																				
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	99172-06	99172-07	99173-01	99173-02	99174-01	99174-02	99174-03	99174-04	99175-01	99175-02	99175-03	B-1A-1	B-1A-2	B-1B-1	B-1B-2	B-1C-1	B-1C-2	B-2A-1	B-2A-2	B-2B-1
Location	MW-106	TP-10	MW-109	TP-12	MW-109	MW-107	MW-107	MW-107	MW-110	MW-110	MW-110	B-1A	B-1A	B-1B	B-1B	B-1C	B-1C	B-2A	B-2A	B-2B
Date Sampled	6/21/99	6/21/99	6/22/99	6/22/99	6/23/99	6/23/99	6/23/99	6/23/99	6/24/99	6/24/99	6/24/99	2/28/97	2/28/97	2/28/97	2/28/97	2/28/97	2/28/97	2/27/97	2/27/97	2/27/97
Sampling Depth [ft bgs]	23	18	7	10	20	13	17	23	12	20	24	1	4.5	1	5.5	1	6.5	8.5	12.5	9
PAHs																				
Acenaphthene	11.0	9.1	49.0	0.0086 J	2.3	0.36 J	0.36 J	0.80	2.9	0.21 J	0.070 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	1.2 J	4.0 J	2.4 J	0.40 U	0.23 J	0.030 J	0.069 J	0.068 J	0.15 J	0.41 U	0.018 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	11.0	7.6	72.0	0.40 U	2.3	0.0100 J	0.40 U	0.50	0.50	0.12 J	0.11 J	ND	ND	ND	ND	0.00068	ND	0.00010	0.00021	ND
Benzo(a)anthracene	5.0	6.9	120	0.040 U	5.2	0.040 U	0.040 U	0.14	1.3	0.38	0.29	ND	ND	ND	ND	0.0022	ND	0.00028	0.00052	ND
Benzo(a)pyrene	4.0	6.1	110	0.040 U	5.5	0.040 U	0.040 U	0.067	1.3	0.39	0.27	ND	ND	ND	ND	0.0022	ND	0.00030	0.00050	ND
Benzo(b)fluoranthene	3.8	6.8	130	0.040 U	6.0	0.040 U	0.040 U	0.088	1.7	0.51	0.33	ND	ND	ND	ND	0.0029	ND	0.00045	0.00074	ND
Benzo(g,h,i)perylene	1.9 J	3.1 J	56.0	0.40 U	2.9	0.40 U	0.40 U	0.021 J	0.74	0.25 J	0.18 J	ND	ND	ND	ND	0.00069	ND	0.00012	0.00019	ND
Benzo(k)fluoranthene	1.5	2.8	55.0	0.040 U	2.8	0.040 U	0.040 U	0.032 J	0.72	0.20	0.14	ND	ND	ND	ND	0.0013	ND	0.00018	0.00027	ND
Chrysene	4.7	7.6	120	0.40 U	5.6	0.40 U	0.40 U	0.14 J	1.6	0.45	0.33 J	0.00012	ND	ND	ND	0.0020	ND	0.00031	0.00057	ND
Dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND	0.00013
Fluoranthene	14.0	20.0	210	0.40 U	10.0	0.40 U	0.40 U	0.81	3.1	0.78	0.67	0.00020	ND	ND	ND	0.0044	ND	0.00057	0.0011	ND
Fluorene	9.2	8.8	35.0	0.40 U	1.7	0.073 J	0.31 J	0.89	0.67	0.12 J	0.089 J	ND	ND	ND	ND	0.00028	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	2.1	3.5	66.0	0.040 U	3.1	0.040 U	0.040 U	0.025 J	0.80	0.25	0.17	ND	ND	ND	ND	0.00077	ND	--	0.00020	ND
Naphthalene	28.0	140	27.0	0.12 J	1.7	3.7	1.6	1.9	1.2	0.12 J	0.065 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	34.0	29.0	190	0.013 J	7.5	0.11 J	0.25 J	2.2	2.1	0.71	0.56	ND	ND	ND	ND	0.0019	ND	0.00036	0.00096	ND
Pyrene	14.0	19.0	170	0.40 U	9.3	0.40 U	0.40 U	0.65	2.8	0.70	0.61	0.00016	ND	ND	ND	0.0037	ND	0.00059	0.0013	ND
Total PAHs	145	274	1410	0.142	66.1	4.28	2.59	8.33	21.6	5.19	3.9	0.0005	0	0	0	0.023	0	0.0033	0.0066	0.0001
Metals																				
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	30.3	9.4	66.8	25.8	11.8	44.2	159	203	666	14.3	5.2	18.3	5.2	2.0	17.7	1.0	4.7	4.8	33.4	6.5
Barium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	1.6	0.70	0.61	0.40
Calcium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	40.8	26.2	56.5	24.7	32.4	9.9	12.0	17.8	9.1	10.4	17.5	--	--	--	--	--	--	--	--	--
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	160	70.1	161	86.3	68.0	3.9	5.0	9.1	1720	107	15.9	36.3	9.5	4.8	5.0	8.6	62.2	--	--	--
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--	--	--	0.17	0.020	0.020	ND	0.020	0.18	--	--	--
Nickel	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPL[illegible]LTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	B-2B-2	B-2C-1	B-2C-2	B-2D-1	B-2D-2	B-3A-1	B-3A-2	B-3B-1	B-3B-2	B-3D-1	B-3D-2	B-3E-1	B-3E-2	B-4A-1	B-4A-2	B-4B-1	B-4B-2	B-4C-1	B-4C-2	C-10-1	C-10-2	C-11-1
Location	B-2B	B-2C	B-2C	B-2D	B-2D	B-3A	B-3A	B-3B	B-3B	B-3D	B-3D	B-3E	B-3E	B-4A	B-4A	B-4B	B-4B	B-4C	B-4C	C-10	C-10	C-11
Date Sampled	2/27/97	2/26/97	2/26/97	2/26/97	2/26/97	3/19/97	3/19/97	4/3/97	4/3/97	4/3/97	4/3/97	4/3/97	4/3/97	2/21/97	2/21/97	2/21/97	2/21/97	2/21/97	2/21/97	4/9/97	4/9/97	4/9/97
Sampling Depth [ft bgs]	13.5	9	13.5	12.5	16.5	5.5	14.5	9.5	13.5	11.5	13	11	13	10.5	15.5	10.5	15.5	10.5	14.5	5.5	7.5	6.5
VOCs																						
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene Chloride)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m&p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCBs																						
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	--	--	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--

1

SOIL SAMPLIN[illegible]S [mg/kg]

QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	B-2B-2	B-2C-1	B-2C-2	B-2D-1	B-2D-2	B-3A-1	B-3A-2	B-3B-1	B-3B-2	B-3D-1	B-3D-2	B-3E-1	B-3E-2	B-4A-1	B-4A-2	B-4B-1	B-4B-2	B-4C-1	B-4C-2	C-10-1	C-10-2	C-11-1
Location	B-2B	B-2C	B-2C	B-2D	B-2D	B-3A	B-3A	B-3B	B-3B	B-3D	B-3D	B-3E	B-3E	B-4A	B-4A	B-4B	B-4B	B-4C	B-4C	C-10	C-10	C-11
Date Sampled	2/27/97	2/26/97	2/26/97	2/26/97	2/26/97	3/19/97	3/19/97	4/3/97	4/3/97	4/3/97	4/3/97	4/3/97	4/3/97	2/21/97	2/21/97	2/21/97	2/21/97	2/21/97	2/21/97	4/9/97	4/9/97	4/9/97
Sampling Depth [ft bgs]	13.5	9	13.5	12.5	16.5	5.5	14.5	9.5	13.5	11.5	13	11	13	10.5	15.5	10.5	15.5	10.5	14.5	5.5	7.5	6.5
PAHs																						
Acenaphthene	ND	ND	0.00088	0.25	0.029	--	--	--	--	--	--	--	--	ND	ND	ND	ND	0.0013	ND	0.23	4.1	1.6
Acenaphthylene	ND	ND	ND	0.036	0.0010	--	--	--	--	--	--	--	--	ND	ND	ND	0.000090	ND	ND	0.030 J	ND	0.19
Anthracene	ND	0.00013	0.0024	0.58	0.058	--	--	--	--	--	--	--	--	0.00030	0.00018	ND	0.00027	0.0030	0.00021	0.44	8.2	3.5
Benzo(a)anthracene	ND	*0.00036*	*0.0022*	*0.69*	*0.058*	--	--	--	--	--	--	--	--	*0.00074*	*0.00053*	*0.00013*	*0.00078*	*0.0053*	*0.00048*	*0.71*	*13.8*	*6.9*
Benzo(a)pyrene	ND	0.00037	0.0017	0.68	0.050	--	--	--	--	--	--	--	--	0.00075	0.00054	0.00016	0.00093	0.0042	0.00043	0.64	12.8	6.2
Benzo(b)fluoranthene	ND	0.00041	0.0018	0.79	0.062	--	--	--	--	--	--	--	--	0.00084	0.00065	0.00019	0.0010	0.0056	0.00080	0.92	17.1	8.5
Benzo(g,h,i)perylene	ND	0.00026	0.00098	0.24	0.013	--	--	--	--	--	--	--	--	0.00033	0.00019	0.000070	0.00037	0.0014	0.00013	0.16	3.7	1.5
Benzo(k)fluoranthene	ND	0.00020	0.00090	0.31	0.027	--	--	--	--	--	--	--	--	0.00043	0.00028	0.000080	0.00043	0.0022	0.00030	0.33	6.8	3.3
Chrysene	ND	0.00040	0.0020	0.84	0.052	--	--	--	--	--	--	--	--	0.00076	0.00053	0.00014	0.00078	0.0048	0.00051	0.71	13.2	6.5
Dibenzo(a,h)anthracene	ND	0.000080	ND	0.081	0.0051	--	--	--	--	--	--	--	--	ND	0.000070	ND	0.00012	0.00055	ND	0.060	1.3	0.59
Fluoranthene	ND	0.00081	0.0064	1.9	0.15	--	--	--	--	--	--	--	--	0.0018	0.0011	0.00027	0.0017	0.010	0.00050	1.6	32.6	14.8
Fluorene	ND	ND	0.0013	0.34	0.038	--	--	--	--	--	--	--	--	ND	ND	ND	ND	0.0014	ND	0.19	3.6	1.8
Indeno(1,2,3-cd)pyrene	ND	0.00026	0.00099	0.27	0.016	--	--	--	--	--	--	--	--	0.00036	0.00020	0.000070	0.00039	0.0018	0.00018	0.18	4.1	1.8
Naphthalene	ND	ND	0.0012	0.41	0.052	--	--	--	--	--	--	--	--	ND	ND	ND	ND	0.00093	ND	0.20	2.6	1.2
Phenanthrene	ND	0.00051	0.0080	2.1	0.19	--	--	--	--	--	--	--	--	0.0013	0.00066	0.00012	0.0010	0.010	0.00017	1.5	27.5	12.6
Pyrene	ND	0.00059	0.0042	1.6	0.12	--	--	--	--	--	--	--	--	0.0014	0.00098	0.00027	0.0018	0.0092	0.00058	1.7	27.8	14.2
Total PAHs	0	0.0044	0.0349	11.2	0.921	--	--	--	--	--	--	--	--	0.009	0.0059	0.0015	0.0097	0.0623	0.0043	9.54	179	85.3
Metals																						
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	8.0	11.9	12.4	43.8	34.1	--	--	--	--	--	--	--	--	6.5	5.7	5.2	--	9.4	12.5	3.7	33.1	12.6
Barium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	0.28	0.45	0.44	1.5	1.6	--	--	--	--	--	--	--	--	1.3	0.61	0.46	--	0.95	0.37	--	--	--
Calcium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	C-11-2	C-12-1	C-12-2	C-13-1	C-13-2	C-14-1	C-15-1	C-15-2	C-16-1	C-17-1	C-17-2	C-18-1	C-18-2	C-19-1	C-19-2	C-20-1	C-20-2	C-21-1	C-21-2	C-22-1	C-22-2	C-23-1	C-23-2
Location	C-11	C-12	C-12	C-13	C-13	C-14	C-15	C-15	C-16	C-17	C-17	C-18	C-18	C-19	C-19	C-20	C-20	C-21	C-21	C-22	C-22	C-23	C-23
Date Sampled	4/9/97	4/9/97	4/9/97	4/9/97	4/9/97	4/16/97	4/19/97	4/19/97	4/19/97	4/19/97	4/19/97	4/19/97	4/19/97	4/19/97	4/19/97	4/9/97	4/9/97	4/10/97	4/10/97	4/10/97	4/10/97	4/10/97	4/10/97
Sampling Depth [ft bgs]	8.5	6.5	10	6.5	7.5	4.5	1.5	6.5	6	5.5	8.5	5	10.5	5	7.5	6.5	8.5	6	0	5.5	7.5	7	9.5
VOCs																							
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene Chloride)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m&p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCBs																							
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPLING [illegible]TS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	C-11-2	C-12-1	C-12-2	C-13-1	C-13-2	C-14-1	C-15-1	C-15-2	C-16-1	C-17-1	C-17-2	C-18-1	C-18-2	C-19-1	C-19-2	C-20-1	C-20-2	C-21-1	C-21-2	C-22-1	C-22-2	C-23-1	C-23-2
Location	C-11	C-12	C-12	C-13	C-13	C-14	C-15	C-15	C-16	C-17	C-17	C-18	C-18	C-19	C-19	C-20	C-20	C-21	C-21	C-22	C-22	C-23	C-23
Date Sampled	4/9/97	4/9/97	4/9/97	4/9/97	4/9/97	4/16/97	4/19/97	4/19/97	4/19/97	4/19/97	4/19/97	4/19/97	4/19/97	4/19/97	4/19/97	4/9/97	4/9/97	4/10/97	4/10/97	4/10/97	4/10/97	4/10/97	4/10/97
Sampling Depth [ft bgs]	8.5	6.5	10	6.5	7.5	4.5	1.5	6.5	6	5.5	8.5	5	10.5	5	7.5	6.5	8.5	6	0	5.5	7.5	7	9.5
PAHs																							
Acenaphthene	ND	0.28	ND	ND	123	0.38	1.6	ND	ND	ND	ND	0.47 J	ND	0.14 J	ND	ND	0.050	0.090	ND	ND	0.44	0.65	0.18
Acenaphthylene	ND	ND	ND	ND	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.040	0.11	ND	ND	0.090	0.71 J	0.13
Anthracene	ND	0.56	ND	0.14 J	50.4	0.50 J	2.1	ND	0.18	ND	ND	1.7	ND	0.33	0.20	0.67 J	0.13 J	0.25 J	ND	0.080	0.81 J	2.2 J	0.45
Benzo(a)anthracene	ND	1.2	ND	0.43	48.6	2.5	7.6	0.31	0.60	1.6	ND	12.7	ND	0.92	0.83	2.5	0.56	1.2	ND	0.23	1.9	6.9	1.0
Benzo(a)pyrene	ND	1.1	ND	0.49	14.6	2.7	8.1	0.35	0.65	1.5	0.13	15.4	ND	0.97	0.94	3.0	0.45	1.4	ND	0.23	1.9	6.7	0.96
Benzo(b)fluoranthene	ND	1.4	0.14 J	0.61	21.3	3.5	10.0	0.41	0.80	1.6	0.15	18.4	ND	1.3	1.3	4.4	0.72	2.2	ND	0.26	2.3	10.4	1.5
Benzo(g,h,i)perylene	ND	0.82	ND	0.38	5.2	2.1	3.7	ND	0.25	0.51 J	ND	4.8	ND	0.27	0.21	1.1 J	0.26	1.0 J	ND	0.16	1.1	2.1	0.34 J
Benzo(k)fluoranthene	ND	0.52	ND	0.24	9.9	1.3	4.9	0.19 J	0.36	0.74 J	ND	6.8	ND	0.51	0.54	1.7	0.30	0.74	ND	0.11	0.95 J	4.3 J	0.51 J
Chrysene	ND	1.3	ND	0.61	40.6	2.7	8.0	0.32	0.64	1.7	ND	12.0	ND	0.94	0.88	2.7	0.66	1.5	ND	0.23	2.0	6.9	1.1
Dibenzo(a,h)anthracene	ND	0.22	ND	ND	ND	0.58	1.1	ND	ND	ND	ND	1.5	ND	ND	ND	ND	0.090	0.31	ND	ND	0.32	0.74	0.13
Fluoranthene	ND	2.7	0.26	1.0	316	4.4	15.3	0.60	1.1	2.8	0.20	16.8	ND	1.9	1.4	4.7	1.3	2.2	ND	0.50	4.1	14.8	2.2
Fluorene	ND	0.28	ND	ND	77.9	0.30	1.3	ND	ND	ND	ND	0.39 J	ND	ND	ND	ND	0.050	0.080	ND	ND	0.43	0.61	0.23
Indeno(1,2,3-cd)pyrene	ND	0.73	ND	0.35	5.8	2.1	4.1	0.14 J	0.26	0.48 J	ND	5.4	ND	0.31	0.25	1.3	0.29	1.1	ND	0.15	1.1	2.4	0.39
Naphthalene	ND	0.13 J	ND	ND	1.9	0.16 J	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.030	ND	ND	ND	0.41	0.18	0.24 J
Phenanthrene	ND	2.3	0.15 J	0.56	423	2.6	10.2	0.31	0.52	1.5	ND	5.8	ND	1.2	0.67	2.4	0.82	1.1	ND	0.33	3.3	11.3	1.9
Pyrene	ND	2.4	0.24	0.90	237	4.2	13.9	0.61	1.1	3.8	0.21	18.8	ND	1.9	1.5	5.0	1.0	2.1	98.3	0.48 J	3.7	13.9	2.0
Total PAHs	0	15.9	0.79	5.75	1380	30	93.3	3.24	6.46	16.4	0.69	121	0	10.6	8.73	29.5	6.75	15.4	98.3	2.76	24.8	84.8	13.2
Metals																							
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	346	5.1	19.4	15.1	9.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	--	ND	0.45	0.58	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	--	--	--	--	--	--	--	--	63.4	48.2	35.2	102	7.7	90.2	98.6	162	646	2720	92.6	20.6	231	1520	325
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.69	0.34	1.5	0.020	0.060	1.6	2.4	1.8
Nickel	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10.0	ND	3.0	2.5	--	--
Silver	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.5	ND	0.17	0.23	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	C-24-1	C-24-2	C-25-1	C-25-2	C-26-1	C-26-2	C-27-1	C-27-2	C-27-3	C-28-1	C-29-1	C-29-2	C-29A-1	C-29A-2	C-30-1	C-30-2	C-30A-1	C-30A-2	C-30A-3	C-31-1	C-31-2	C-32-1
Location	C-24	C-24	C-25	C-25	C-26	C-26	C-27	C-27	C-27	C-28	C-29	C-29	C-29A	C-29A	C-30	C-30	C-30A	C-30A	C-30A	C-31	C-31	C-32
Date Sampled	4/11/97	4/11/97	4/11/97	4/11/97	4/11/97	4/11/97	4/11/97	4/11/97	4/11/97	4/10/97	4/10/97	4/10/97	4/17/97	4/17/97	4/10/97	4/10/97	4/17/97	4/17/97	4/17/97	4/10/97	4/10/97	4/8/97
Sampling Depth [ft bgs]	6.5	8.5	7	9	7	9	0	5.5	7.5	5	3	6.5	5	7	4.5	6.5	0	5.5	8.5	4.5	6.5	5
VOCs																						
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene Chloride)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m&p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCBs																						
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	C-24-1	C-24-2	C-25-1	C-25-2	C-26-1	C-26-2	C-27-1	C-27-2	C-27-3	C-28-1	C-29-1	C-29-2	C-29A-1	C-29A-2	C-30-1	C-30-2	C-30A-1	C-30A-2	C-30A-3	C-31-1	C-31-2	C-32-1
Location	C-24	C-24	C-25	C-25	C-26	C-26	C-27	C-27	C-27	C-28	C-29	C-29	C-29A	C-29A	C-30	C-30	C-30A	C-30A	C-30A	C-31	C-31	C-32
Date Sampled	4/11/97	4/11/97	4/11/97	4/11/97	4/11/97	4/11/97	4/11/97	4/11/97	4/11/97	4/10/97	4/10/97	4/10/97	4/17/97	4/17/97	4/10/97	4/10/97	4/17/97	4/17/97	4/17/97	4/10/97	4/10/97	4/8/97
Sampling Depth [ft bgs]	6.5	8.5	7	9	7	9	0	5.5	7.5	5	3	6.5	5	7	4.5	6.5	0	5.5	8.5	4.5	6.5	5
PAHs																						
Acenaphthene	ND	1.0	23.4	5.9	0.30	21.4	ND	1.5	ND	ND	0.45	0.12	0.84	2.4	ND	0.16	ND	ND	ND	ND	0.12	56.0
Acenaphthylene	ND	0.27	ND	ND	ND	3.5	ND	ND	ND	0.11	0.26 J	0.17	0.16	0.17	ND	0.18	ND	ND	ND	ND	ND	ND
Anthracene	ND	1.4	41.1	9.5	0.72	27.7	0.080	2.5 J	ND	0.21	1.5	0.48	2.7	5.0	ND	0.45	ND	ND	1.0	ND	0.33	94.4
Benzo(a)anthracene	ND	2.5	69.3	15.9	1.1	37.4	0.23	6.5	0.070	0.68 J	3.4	2.0	4.8	9.3	0.080	1.5 J	0.060	0.20 J	4.0	0.16	0.81	101
Benzo(a)pyrene	ND	2.2	59.9	13.7	1.0	27.6	0.22	5.9	ND	0.69	3.1	1.9	5.3	8.4	0.080	1.5 J	0.070	0.19	3.6	0.16	0.73	84.3
Benzo(b)fluoranthene	ND	2.5	70.3	17.0	1.2	26.8	0.26	7.1	0.080	0.91 J	4.4	3.1	5.4	10.5	0.12	2.3	0.090	0.22	3.4	0.21	0.96	98.1
Benzo(g,h,i)perylene	ND	1.4	26.8	6.6	0.47	10.6	0.10	2.6 J	ND	0.19	0.78	0.62	3.5	2.6	ND	ND	ND	0.14	2.2	ND	0.17	33.3 J
Benzo(k)fluoranthene	ND	0.96	29.3	17.2	0.42	8.8	0.12	3.6	ND	0.41	1.9	1.3	2.3	4.8	ND	0.92	ND	0.11	1.6	0.10	0.42 J	37.3
Chrysene	ND	2.4	66.7	15.5	1.0	39.4	0.22	6.6	ND	0.69	3.6	2.3	4.4	8.6	0.080	1.5 J	0.060	0.20 J	3.7	0.14	0.85	98.4
Dibenzo(a,h)anthracene	ND	0.38	8.4	2.2	0.15	4.1	ND	0.86	ND	ND	0.28	0.22	0.70	0.99	ND	0.14	ND	ND	0.60	ND	ND	10.8
Fluoranthene	ND	5.6	160	36.8	2.5	94.2	0.47	14.5	0.11	1.2	8.9	4.3	9.8	20.1	0.12	3.2	0.10	0.41	5.8	0.29	1.8	245
Fluorene	ND	0.78	18.6	4.4	0.34	42.9	ND	1.1	ND	ND	0.57	0.16	1.3	2.4	ND	0.17	ND	ND	ND	ND	0.16	56.2
Indeno(1,2,3-cd)pyrene	ND	1.3	30.0	7.4	0.50	11.0	0.11	2.9	ND	0.23	0.91	0.75	3.2	3.1	ND	0.46	ND	0.13	2.0	ND	0.19	35.8
Naphthalene	ND	0.47	7.0	2.3	ND	21.7	ND	ND	ND	ND	0.18	0.14	0.72	1.1	ND	ND	ND	ND	ND	ND	ND	30.9
Phenanthrene	ND	5.3	132	32.1	2.5	179	0.28	9.9	ND	0.73	7.6	2.8	9.7	19.1	ND	1.5	0.060	0.28 J	2.5	0.15	1.4	328
Pyrene	ND	5.0	139	32.1	2.2	96.6	0.43	12.5	0.11	1.3	8.6	4.1	9.2	18.0	0.15	3.3	0.10	0.40	7.7	0.29	2.1	217
Total PAHs	0	33.4	882	219	14.5	653	2.52	78.1	0.37	7.36	46.5	24.5	63.8	117	0.63	17.4	0.54	2.28	38.2	1.5	9.94	1530
Metals																						
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	ND	ND	ND	--	--	--	--	--	--	--	ND	ND	4.2	--	--	ND
Arsenic	--	--	--	--	--	--	1.9	4.4	2.3	--	--	--	--	--	--	--	6.1	6.9	67.2	--	--	--
Barium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	0.38	0.44	0.42	--	--	--	--	--	--	--	0.52	0.49	0.35	--	--	--
Cadmium	--	--	--	--	--	--	ND	0.27	ND	--	--	--	--	--	--	--	ND	ND	0.32	--	--	--
Calcium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	--	--	--	--	--	--	24.8	34.8	21.4	--	--	--	--	--	--	--	17.2	20.7	5.7	--	--	--
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	29.3	30.8	52.5	83.8	41.5	129	37.6	55.0	25.5	--	--	--	--	--	--	--	25.7	31.8	505	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	20.3	23.9	67.6	77.0	46.4	524	23.4	46.5	20.9	128	418	1360	44.3	336	40.4	356	74.6	66.2	1180	56.4	88.0	--
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	0.050	0.070	0.44	0.18	0.090	4.7	0.080	0.12	0.060	0.47	0.31	12.7	0.070	2.7	0.16	0.16	0.31	0.20	6.0	0.11	0.62	--
Nickel	--	--	--	--	--	--	22.0	22.0	20.5	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	ND
Silver	--	--	--	--	--	--	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	0.28	0.18	0.19	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	65.1	107	58.3	--	179	82.0	--	--	--	--	--	--	--	--	--	44.6

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	C-32-2	C-33-2	C-34-1	C-34-2	C-35-1	C-35-2	C-36-1	C-36-2	C-40-1	C-40-2	C-40-3	C-41-1	C-42-1	C-43-1	C-43-2	C-44-1	C-44-2	C-45-1	C-45-2	C-45-3	C-46-1	C-47-1	C-47-2	C-48-1
Location	C-32	C-33	C-34	C-34	C-35	C-35	C-36	C-36	C-40	C-40	C-40	C-41	C-42	C-43	C-43	C-44	C-44	C-45	C-45	C-45	C-46	C-47	C-47	C-48
Date Sampled	4/8/97	4/8/97	4/8/97	4/8/97	4/8/97	4/8/97	4/19/97	4/19/97	4/8/97	4/8/97	4/8/97	4/8/97	4/8/97	4/8/97	4/8/97	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97	4/4/97
Sampling Depth [ft bgs]	7	8	5.5	7.5	6	7.5	0	8.5	6.5	8.5	9.5	6	9.5	6.5	9.5	5.5	8.5	0	5.5	8.5	6.5	5.5	8.5	7
VOCs																								
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene Chloride)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m&p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCBs																								
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	C-32-2	C-33-2	C-34-1	C-34-2	C-35-1	C-35-2	C-36-1	C-36-2	C-40-1	C-40-2	C-40-3	C-41-1	C-42-1	C-43-1	C-43-2	C-44-1	C-44-2	C-45-1	C-45-2	C-45-3	C-46-1	C-47-1	C-47-2	C-48-1
Location	C-32	C-33	C-34	C-34	C-35	C-35	C-36	C-36	C-40	C-40	C-40	C-41	C-42	C-43	C-43	C-44	C-44	C-45	C-45	C-45	C-46	C-47	C-47	C-48
Date Sampled	4/8/97	4/8/97	4/8/97	4/8/97	4/8/97	4/8/97	4/19/97	4/19/97	4/8/97	4/8/97	4/8/97	4/8/97	4/8/97	4/8/97	4/8/97	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97	4/4/97
Sampling Depth [ft bgs]	7	8	5.5	7.5	6	7.5	0	8.5	6.5	8.5	9.5	6	9.5	6.5	9.5	5.5	8.5	0	5.5	8.5	6.5	5.5	8.5	7
PAHs																								
Acenaphthene	60.7	1.1	0.37	65.5	ND	26.9	ND	2.5	5.9	8.7	3.1	0.29	ND	1.5	ND	0.24	3.0	ND	24.5	356	442	ND	159	91.3
Acenaphthylene	2.2	ND	ND	6.5	ND	ND	ND	0.54	ND	ND	ND	0.34	ND	ND	ND	ND	ND	ND	ND	ND	122	ND	ND	ND
Anthracene	108	2.5	0.87	203	ND	87.7	0.21	3.2	1.3	4.3	4.3	1.3	0.21	3.0	ND	0.32	0.73	ND	27.9	423	546	0.13	291 J	116
Benzo(a)anthracene	97.3	3.8	2.2	133	0.31	114	0.82	8.6	0.97	1.2	5.1	2.6	0.79	6.4	0.080	0.87 J	4.2	0.14	102	1470	2060	0.58	1290	114
Benzo(a)pyrene	83.7	3.3	2.1	153	0.32	101	0.90	9.5	0.88	0.61	4.7	2.5	0.62	4.9	ND	0.88	8.3	0.15	113	1590	2100	0.62	1390	105
Benzo(b)fluoranthene	98.0	4.8	2.5	185	0.38	142	1.1	12.8	0.95	0.79	6.5	3.3	0.93	5.8	0.090	1.0	7.6	0.19	163	2030	2790	0.76	1750	104
Benzo(g,h,i)perylene	30.2	1.3	0.88	52.7	ND	35.8	0.30	3.0	0.25	ND	1.3	0.67	0.33	1.3	ND	0.66	8.0	0.13	30.0	473	724	0.33	1050	41.8
Benzo(k)fluoranthene	40.2	1.8	1.1	62.1	0.18	54.3	0.49	4.8	0.32	0.36	2.8	1.3	0.34	2.3	ND	0.41	2.9	0.080	57.2 J	764	1040	0.32	784	45.0
Chrysene	94.8	4.2	2.0	137	0.35	114	0.92	8.4	1.1	1.1	5.1	2.6	0.90	6.6	0.080	0.84 J	4.3	0.15	108	1460	2060	0.57	1550	111
Dibenzo(a,h)anthracene	10.5	0.41	0.29 J	19.9	ND	10.4	ND	1.0	ND	ND	0.46	0.22	0.11	0.45	ND	0.18	2.2	ND	12.0	193	291	ND	317	13.7
Fluoranthene	241	13.5	4.8	295	0.63	370	1.9	17.7	4.7	7.3	14.2	5.7	1.5	11.2	0.20	1.8	4.3	0.26	192	2790	3830	0.97	2220	237
Fluorene	62.2	1.5	0.39	63.4	ND	3.3	ND	2.4	3.8	6.4	2.9	0.44	ND	1.4	ND	0.17	ND	ND	19.5	270	340	ND	135	97.6
Indeno(1,2,3-cd)pyrene	33.1	1.4	0.94	57.5	ND	40.7	0.37	3.3	0.23	ND	1.5	0.68	0.36	1.3	ND	0.63	7.2	0.12	37.0	612	903	0.37	1000	44.4
Naphthalene	37.1	3.0	ND	34.1	ND	16.2	ND	2.0	13.0	11.4	1.4	0.34	ND	0.40	ND	0.17	ND	ND	15.3	215	292	ND	85.9	300 J
Phenanthrene	339	11.5	3.2	386	0.43	276	1.1	14.1	9.9	16.6	16.5	3.8	1.0	16.4	0.13	1.6	2.2	0.12	137	1950	2670	0.63	1440	324
Pyrene	210	10.9	4.2	262	0.62	310	1.8	15.8	3.7	5.5	12.1	5.8	1.5	16.3	0.14	1.7	4.8	0.25	158	2290	3160	0.84	2160	242
Total PAHs	1550	64.9	25.8	2120	3.22	1700	9.82	110	47	64.5	82	31.7	8.62	79.2	0.72	11.5	59.7	1.59	1200	16900	23400	6.12	15600	1990
Metals																								
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	ND	2.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	--	1.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	--	162	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	44.5	141	161	117	57.4	170	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	C-48-2	C-50-1	C-50-2	C-51-1	C-51-2	C-52-1	C-52-2	C-56-1	C-56-2	C-57-1	C-57-2	C-57-3	C-58-1	C-58-3	C-59-1	C-59-2	C-6-2	C-60-1	C-61-1	C-61-2	C-61-3	C-62-1	C-62-2
Location	C-48	C-50	C-50	C-51	C-51	C-52	C-52	C-56	C-56	C-57	C-57	C-57	C-58	C-58	C-59	C-59	C-6	C-60	C-61	C-61	C-61	C-62	C-62
Date Sampled	4/4/97	4/7/97	4/7/97	4/7/97	4/7/97	4/7/97	4/7/97	4/16/97	4/16/97	4/16/97	4/16/97	4/16/97	4/17/97	4/22/97	4/17/97	4/17/97	4/9/97	4/17/97	4/17/97	4/17/97	4/22/97	4/15/97	4/15/97
Sampling Depth [ft bgs]	8	6.5	8.5	6	8.5	5.5	8.5	6	12	7	11.5	0	5.5	0	5.5	9	8.5	6	4.5	7.5	0	2	5.5
VOCs																							
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
Dichloromethane (Methylene Chloride)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
Hexachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
trans-1,2-dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
m&p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	0
PCBs																							
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	C-48-2	C-50-1	C-50-2	C-51-1	C-51-2	C-52-1	C-52-2	C-56-1	C-56-2	C-57-1	C-57-2	C-57-3	C-58-1	C-58-3	C-59-1	C-59-2	C-6-2	C-60-1	C-61-1	C-61-2	C-61-3	C-62-1	C-62-2
Location	C-48	C-50	C-50	C-51	C-51	C-52	C-52	C-56	C-56	C-57	C-57	C-57	C-58	C-58	C-59	C-59	C-6	C-60	C-61	C-61	C-61	C-62	C-62
Date Sampled	4/4/97	4/7/97	4/7/97	4/7/97	4/7/97	4/7/97	4/7/97	4/16/97	4/16/97	4/16/97	4/16/97	4/16/97	4/17/97	4/22/97	4/17/97	4/17/97	4/9/97	4/17/97	4/17/97	4/17/97	4/22/97	4/15/97	4/15/97
Sampling Depth [ft bgs]	8	6.5	8.5	6	8.5	5.5	8.5	6	12	7	11.5	0	5.5	0	5.5	9	8.5	6	4.5	7.5	0	2	5.5
PAHs																							
Acenaphthene	139	0.26	317	0.30	14.3	3.5	1.1	19.1	ND	ND	104	15.2	0.56	0.19 J	0.42	0.85	0.090 J	ND	ND	ND	ND	7.8	4.8
Acenaphthylene	ND	0.15	ND	0.12	ND	ND	0.68	2.9	ND	ND	44.9	0.90	ND	ND	0.77	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	171	0.72	399	0.62	18.2	4.7	3.2	39.6	ND	0.18	180 J	5.1	1.5	0.33	1.5	1.9	0.090	0.25	0.18 J	ND	ND	13.3	7.9
Benzo(a)anthracene	189	2.5	1660	2.5	70.5	19.3	20.2	70.4	ND	0.67	171	12.2	2.6	0.51	2.8	3.2	0.35	0.81	ND	ND	ND	26.3	16.1
Benzo(a)pyrene	172	2.0	1820	2.7	81.2	21.0	16.9	61.0	ND	0.71	130	6.8	2.5	0.48	2.7	2.8	0.33	0.56	0.68	ND	ND	23.4	14.1
Benzo(b)fluoranthene	190	3.0	2480	3.7	103	27.7	29.8	83.0	ND	1.1	202	10.6	3.0	0.52	3.5	3.3	0.39	0.94	0.71	ND	ND	27.5	17.7
Benzo(g,h,i)perylene	56.2	0.55	573	0.85	31.5	10.9	10.1	0.73	ND	0.26	45.0	1.6	0.80	0.36	0.88	1.7	0.25	0.47	0.42	ND	ND	8.8	5.3
Benzo(k)fluoranthene	61.5	1.2	985	1.6	46.5	9.8	10.7	31.3	ND	0.47	71.9	4.3 J	1.3	0.24	1.4	1.2	0.19	0.42	0.30	ND	ND	9.7	6.9
Chrysene	174	2.6	1720	2.7	74.1	20.5	23.7	64.1	ND	0.79	154	11.1	2.5	0.53	2.8	3.0	0.35	0.88	0.58	ND	ND	25.9	15.7
Dibenzo(a,h)anthracene	20.4	0.21	240	0.30	12.0	3.6	3.7	6.4	ND	ND	ND	0.58	0.29	ND	0.30	0.49	0.070	0.13 J	ND	ND	ND	2.6	1.8
Fluoranthene	377	6.5	2930	4.8	129	32.7	34.5	146	ND	1.3	512	51.3	5.8	1.3	6.3	7.0	0.65	1.6	1.2	ND	ND	59.5	37.7
Fluorene	144	0.31	255	0.29	11.6	2.9	1.0	19.6	ND	ND	170	14.1	0.61	0.21 J	ND	1.1	0.080 J	ND	ND	ND	ND	6.0	3.5
Indeno(1,2,3-cd)pyrene	61.5	0.64	710	0.91	35.5	12.5	12.3	21.5	ND	0.29	52.7	2.0	0.99	0.32	0.93	1.6	0.23	0.50	0.41	ND	ND	9.7	6.2
Naphthalene	606	0.16	174	0.13	7.0	1.9	0.43	22.1 J	0.37	ND	2830	4.7	0.12	0.99	0.53	1.6	0.050 J	1.3	ND	ND	ND	1.6	1.2
Phenanthrene	545	2.9	1870	2.7	85.5	21.1	11.2	144	ND	0.74	819	43.0	4.7	1.6	5.7	7.3	0.36	1.3	0.73	ND	ND	46.5	29.1
Pyrene	379	5.7	2520	4.7	109	27.9	30.5	141	ND	1.3	465	39.2	5.3	1.2	5.8	6.6	0.62	1.5	1.3	ND	ND	56.6	34.2
Total PAHs	3290	29.3	18700	28.8	829	220	210	873	0.37	7.82	5950	223	32.6	8.76	36.3	43.5	4.1	10.7	6.52	0	0	325	202
Metals																							
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--	--	ND	--	--	ND	--	--	ND	--	ND	ND	ND	ND	ND
Arsenic	--	--	--	--	--	--	--	--	--	5.2	122	--	--	8.7	--	--	4.2	--	8.6	ND	10.6	2.0	3.2
Barium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--	--	0.19	--	--	0.35	--	--	--	--	0.42	ND	0.45	0.60	0.48
Cadmium	--	--	--	--	--	--	--	--	--	--	0.40	--	--	ND	--	--	--	--	ND	ND	ND	0.24	0.25
Calcium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	--	--	--	--	--	--	--	--	--	4.0	8.4	--	--	30.0	--	--	--	--	29.6	29.6	22.2	15.0	15.4
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	--	--	--	13.3	53.3	--	--	30.7	--	--	--	--	57.9	55.9	32.5	15.3	17.7
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	--	--	--	--	--	--	--	--	--	13.1	81.2	--	--	267	--	--	46.1	--	120	0.27	51.3	44.4	40.0
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--	0.30	0.48	--	--	0.38	--	--	0.13	--	0.68	1.3	0.11	ND	0.040
Nickel	--	--	--	--	--	--	--	--	--	4.6	11.1	--	--	19.7	--	--	--	--	--	--	20.2	23.8	21.7
Potassium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--	ND	ND	ND
Silver	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--	ND	ND	ND
Sodium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	0.29	--	--	0.13	--	--	--	--	--	--	0.12	0.10	ND
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	18.9	69.7	--	--	138	--	--	--	--	--	--	145	50.5	55.0

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	C-63-1	C-63-2	C-64-1	C-64-2	C-65-1	C-65-2	C-66-1	C-66-2	C-67-1	C-67-2	C-67-3	C-69-1	C-69-2	C-7-1	C-7-2	C-70-1	C-70A-2	C-71-1	C-71-2	C-74-1	C-74-2	C-75-1
Location	C-63	C-63	C-64	C-64	C-65	C-65	C-66	C-66	C-67	C-67	C-67	C-69	C-69	C-7	C-7	C-70	C-70A	C-71	C-71	C-74	C-74	C-75
Date Sampled	4/15/97	4/15/97	4/15/97	4/15/97	4/15/97	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97	4/15/97	4/15/97	4/9/97	4/9/97	4/15/97	4/15/97	4/15/97	4/15/97	4/19/97	4/19/97	4/19/97
Sampling Depth [ft bgs]	3	6	4	6	2	3.5	3.5	13	0	4	12	3.5	5	5.5	8.5	1	6	0.5	5	0	5	0
VOCs																						
1,1,1-Trichloroethane	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene Chloride)	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	--	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-dichloroethene	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m&p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	0	0	0	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCBs																						
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	C-63-1	C-63-2	C-64-1	C-64-2	C-65-1	C-65-2	C-66-1	C-66-2	C-67-1	C-67-2	C-67-3	C-69-1	C-69-2	C-7-1	C-7-2	C-70-1	C-70A-2	C-71-1	C-71-2	C-74-1	C-74-2	C-75-1
Location	C-63	C-63	C-64	C-64	C-65	C-65	C-66	C-66	C-67	C-67	C-67	C-69	C-69	C-7	C-7	C-70	C-70A	C-71	C-71	C-74	C-74	C-75
Date Sampled	4/15/97	4/15/97	4/15/97	4/15/97	4/15/97	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97	4/14/97	4/15/97	4/15/97	4/9/97	4/9/97	4/15/97	4/15/97	4/15/97	4/15/97	4/19/97	4/19/97	4/19/97
Sampling Depth [ft bgs]	3	6	4	6	2	3.5	3.5	13	0	4	12	3.5	5	5.5	8.5	1	6	0.5	5	0	5	0
PAHs																						
Acenaphthene	1.1	ND	ND	ND	12.2	1.1	0.31	ND	ND	2.7	ND	ND	ND	--	--	0.080	ND	17.8	1.9	0.16 J	ND	0.45
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND	16.3	ND	ND	ND	ND	ND	--	--	ND	ND	ND	ND	0.24	ND	0.28
Anthracene	3.3	ND	ND	ND	23.5	2.2	0.63	30.8	ND	5.6	2.3	0.28	ND	--	--	0.19	ND	24.5	2.1	0.39	0.43	0.32
Benzo(a)anthracene	8.4	ND	0.45	0.90	41.3	6.6	1.7	27.2	0.10	13.2	5.8	1.5	0.22	--	--	0.86	ND	33.8	3.8	1.4	1.1	2.7
Benzo(a)pyrene	6.9	ND	0.67	1.0	37.1	5.4	1.6	22.8	0.12	13.1	6.3	1.3	0.21	--	--	0.84	ND	26.8	2.8	1.6	0.82	2.7
Benzo(b)fluoranthene	8.1	ND	0.86	1.2	46.8	7.1	2.0	27.5	0.14	17.1	8.0	1.7	0.25	--	--	1.2	ND	27.7	2.7	2.2	1.2	3.6
Benzo(g,h,i)perylene	2.3	ND	ND	0.98	12.5	1.4	0.62	3.9	0.090	3.1	4.4	0.92	0.16	--	--	0.22	ND	7.7	1.7	0.39	ND	0.78
Benzo(k)fluoranthene	3.4	ND	0.49	0.59	19.9	3.3	0.76	12.8	0.060	7.8	3.3	0.73	0.10	--	--	0.48	ND	10.5	1.2	0.97	0.66 J	1.9
Chrysene	8.2	ND	0.59	1.1	40.6	5.3	1.8	22.9	0.11	13.1	5.9	1.5	0.23	--	--	0.86	ND	36.0	3.7	1.5	1.1	2.9
Dibenzo(a,h)anthracene	0.97	ND	ND	ND	4.2	0.52	0.20	1.6	ND	1.2	1.2	0.28	ND	--	--	0.090	ND	3.2	0.48	0.14 J	ND	0.28
Fluoranthene	14.4	ND	0.73	1.2	99.3	11.3	3.5	66.6	ND	28.3	11.6	2.7	0.36	--	--	1.4	ND	83.3	8.9	2.6	2.5	5.4
Fluorene	1.2	ND	ND	ND	12.3	1.0	0.30	18.5	ND	2.7	ND	0.21	ND	--	--	0.080	ND	34.3	3.2	0.16 J	ND	0.46
Indeno(1,2,3-cd)pyrene	2.9	ND	ND	0.87	13.5	1.6	0.63	5.0	0.080	3.5	4.5	0.95	0.15	--	--	0.27	ND	8.6	1.5	0.43	0.15 J	0.87
Naphthalene	1.5	ND	ND	ND	3.5	0.29	ND	18.4	ND	0.91	ND	ND	ND	--	--	ND	ND	41.9	1.3	0.16 J	ND	0.33
Phenanthrene	13.1	ND	ND	ND	83.0	7.7	3.4	84.8	0.10	19.5	7.5	0.74	0.11	--	--	0.72	ND	149	11.1	1.5	1.6	1.6
Pyrene	15.0	ND	0.80	1.2	93.5	10.4	3.5	58.5	ND	22.5	10.1	3.2	0.41	--	--	1.6	ND	93.8	9.8	3.0	2.4	5.4
Total PAHs	90.9	0	4.59	9.05	543	65.2	21	418	0.8	154	70.8	15.9	2.2	--	--	8.84	0	599	56.2	16.9	12	29.9
Metals																						
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	ND	ND	ND	ND	--	--	--	--	ND	--	ND	--	--	2.7	ND	--	--	--	--	ND	ND	ND
Arsenic	6.8	7.4	5.4	176	--	--	--	--	2.6	--	7.0	--	--	--	--	--	--	--	--	5.9	2.2	8.9
Barium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	0.080	0.13	0.080	0.23	--	--	--	--	0.42	--	0.14	--	--	--	--	--	--	--	--	0.50	0.47	0.36
Cadmium	ND	ND	0.29	ND	--	--	--	--	ND	--	0.33	--	--	ND	ND	--	--	--	--	0.23	ND	0.27
Calcium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	6.7	9.2	12.2	9.8	--	--	--	--	23.4	--	14.3	--	--	--	--	--	--	--	--	20.5	22.1	20.2
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	29.6	26.4	90.4	154	--	--	--	--	36.8	--	66.3	--	--	--	--	--	--	--	--	129	30.1	50.2
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	23.8	15.9	55.4	120	--	--	--	--	36.6	--	88.4	--	--	77.8	189	--	--	--	--	112	74.3	114
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	0.080	0.050	0.15	0.23	--	--	--	--	0.070	--	0.21	--	--	0.090	0.31	--	--	--	--	0.35	0.51	0.46
Nickel	15.3	12.3	17.0	13.0	--	--	--	--	19.8	--	13.7	--	--	--	--	--	--	--	--	21.3	20.4	19.3
Potassium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	ND	ND	ND	ND	--	--	--	--	ND	--	ND	--	--	--	--	--	--	--	--	ND	ND	ND
Silver	ND	ND	ND	ND	--	--	--	--	ND	--	ND	--	--	--	--	--	--	--	--	ND	ND	ND
Sodium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	ND	ND	ND	0.29	--	--	--	--	0.22	--	ND	--	--	--	--	--	--	--	--	0.16	0.24	ND
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	37.6	27.9	85.8	147	--	--	--	--	93.5	--	57.2	--	--	--	--	--	--	--	--	239	73.0	177

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	C-75-2	C-75-3	C-76-1	C-76-2	C-76-3	C-77-1	C-77-2	C-77-3	C-77-4	C-78-1	C-78-2	C-78-3	C-79-1	C-79-2	C-79-3	C-8-1	C-8-2	C-80-1	C-80-2	C-81-1	C-81-2	C-81-3
Location	C-75	C-75	C-76	C-76	C-76	C-77	C-77	C-77	C-77	C-78	C-78	C-78	C-79	C-79	C-79	C-8	C-8	C-80	C-80	C-81	C-81	C-81
Date Sampled	4/19/97	4/19/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/17/97	4/17/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97
Sampling Depth [ft bgs]	3.5	13.5	0	3.5	9	0	3.5	12.5	15.5	0	3.5	11.5	0	4.5	6.5	4.5	10.5	0	4.5	0	3.5	8.5
VOCs																						
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene Chloride)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	ND	ND	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	--	--	ND	ND	ND	ND	ND
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m&p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCBs																						
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPL[illegible]TS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	C-75-2	C-75-3	C-76-1	C-76-2	C-76-3	C-77-1	C-77-2	C-77-3	C-77-4	C-78-1	C-78-2	C-78-3	C-79-1	C-79-2	C-79-3	C-8-1	C-8-2	C-80-1	C-80-2	C-81-1	C-81-2	C-81-3
Location	C-75	C-75	C-76	C-76	C-76	C-77	C-77	C-77	C-77	C-78	C-78	C-78	C-79	C-79	C-79	C-8	C-8	C-80	C-80	C-81	C-81	C-81
Date Sampled	4/19/97	4/19/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/17/97	4/17/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97
Sampling Depth [ft bgs]	3.5	13.5	0	3.5	9	0	3.5	12.5	15.5	0	3.5	11.5	0	4.5	6.5	4.5	10.5	0	4.5	0	3.5	8.5
PAHs																						
Acenaphthene	2.4	ND	--	--	--	--	--	--	--	0.25	2.9	3.8	0.13	1.4	4.9	--	--	ND	ND	ND	0.74	1.2
Acenaphthylene	0.18 J	ND	--	--	--	--	--	--	--	0.18 J	0.18 J	ND	ND	ND	0.79	--	--	ND	ND	0.27	ND	ND
Anthracene	0.99	ND	0.94	4.1	3.0	0.91	ND	17.0	47.2	0.49	2.5	8.3	0.38	1.6	3.6	--	--	0.13 J	0.48	0.53	1.2	1.6
Benzo(a)anthracene	2.7	ND	2.7	5.1	9.1	2.9	0.44	61.8	177	1.7	5.9	25.0	1.4	7.4	3.7	--	--	0.64	2.5	2.0	2.2	2.9
Benzo(a)pyrene	2.7	ND	2.6	4.5	9.0	3.3	0.46	66.1	191	1.9	5.2	27.0	1.4	9.5	3.3	--	--	0.67	2.9	2.1	2.3	2.6
Benzo(b)fluoranthene	3.6	ND	3.2	5.4	11.7	4.4	0.57	93.6	296	2.6	7.6	42.0	2.3	14.2	5.1	--	--	1.0	4.5	3.5	3.3	3.5
Benzo(g,h,i)perylene	0.78	ND	1.2	1.4	2.5	1.1	0.13 J	25.5	58.8	0.64	1.3	7.1	0.19	1.8	0.58	--	--	ND	0.57	0.38	0.32	0.64
Benzo(k)fluoranthene	1.9	ND	1.2	2.5	4.6	1.8	0.25	38.3	90.0	1.1	2.7	15.5	0.91	6.9	2.4	--	--	0.48	2.2	1.3	1.7	1.7
Chrysene	2.9	ND	2.7	4.8	8.3	3.0	0.43	64.2	191	1.9	5.6	25.1	1.4	8.9	4.2	--	--	0.75	2.7	2.1	2.4	2.7
Dibenzo(a,h)anthracene	0.28	ND	0.62	0.47	0.76	0.35	ND	8.6	22.4	0.21	0.45	2.6	0.080	0.68	0.22 J	--	--	ND	0.22 J	0.13 J	ND	0.24 J
Fluoranthene	5.4	ND	4.6	12.8	17.1	5.3	0.70	112	324	3.1	13.9	48.6	0.31	11.7	10.6	--	--	1.3	4.2	3.5	5.8	7.2
Fluorene	2.0	ND	--	--	--	--	--	--	--	0.20 J	1.8	3.5	0.11 J	0.72	5.1	--	--	ND	0.23 J	0.19	0.78	1.1
Indeno(1,2,3-cd)pyrene	0.87	ND	1.1	1.6	2.7	1.2	0.15 J	26.5	69.8	0.71	1.5	8.5	0.27	2.2	0.72	--	--	0.13 J	0.73	0.45	0.41	0.78
Naphthalene	2.1	ND	--	--	--	--	--	--	--	0.13 J	2.6	1.2	ND	6.4	20.1	--	--	ND	0.19 J	0.14 J	0.61	1.5
Phenanthrene	3.4	ND	3.4	15.9	10.1	3.0	0.32	86.2	239	1.8	15.7	35.3	1.8	7.3	16.8	--	--	0.76	2.3	2.0	5.3	7.0
Pyrene	5.4	ND	5.9	12.0	17.7	5.8	0.85	104	300	3.6	14.8	49.4	3.3	14.3	10.5	--	--	1.6	4.5	4.5	5.6	6.4
Total PAHs	37.4	0	30.2	70.6	96.5	33.2	4.3	704	2010	20.5	84.7	303	14	94.9	92.7	--	--	7.44	28.1	23.1	32.6	41
Metals																						
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	ND	ND	ND	ND	ND	ND	3.8	ND	5.2	6.6	ND	ND	3.3	42.7	52.0	ND	ND	ND	46.5	ND	3.3	ND
Arsenic	4.5	7.1	5.5	6.6	4.1	11.7	5.0	91.9	106	5.7	4.1	17.8	4.3	2900	3370	--	--	3.5	684	7.8	6.8	5.2
Barium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	0.41	0.12	0.45	0.43	0.42	0.47	0.40	0.28	0.30	0.45	0.32	0.51	0.38	ND	0.16	--	--	0.48	ND	0.38	0.44	0.39
Cadmium	0.81	ND	ND	0.66	0.58	0.56	ND	1.4	2.8	ND	ND	0.51	ND	1.1	2.7	ND	1.7	ND	ND	ND	ND	0.91
Calcium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	23.7	2.8	24.6	17.8	26.8	24.7	157	14.3	24.0	26.5	51.4	39.6	80.4	17.3	47.9	--	--	19.7	69.9	24.5	19.9	18.6
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	31.4	26.7	40.4	31.7	38.0	56.7	88.8	480	655	68.7	48.4	58.0	63.0	563	1240	--	--	25.5	854	53.0	29.9	42.6
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	361	ND	154	238	270	139	65.9	585	1020	110	59.8	324	80.3	6520	8210	62.2	62.1	81.0	5710	269	1130	361
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	2.3	0.030	0.21	0.92	1.4	0.35	0.10	1.4	2.1	23.9	0.12	3.1	0.11	43.7	87.6	--	--	0.080	33.3	0.30	0.73	1.5
Nickel	14.9	7.8	20.4	10.7	16.3	21.6	50.1	21.6	17.8	ND	26.0	37.2	32.1	15.3	44.9	--	--	20.1	57.5	23.2	21.4	14.4
Potassium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	ND	ND	ND	ND	ND	ND	2.6	5.0	6.7	ND	ND	3.3	ND	34.6	103	--	--	ND	88.3	ND	ND	ND
Silver	0.66	ND	ND	ND	ND	ND	ND	0.93	1.5	ND	ND	0.85	ND	19.8	7.1	--	--	ND	2.6	ND	ND	ND
Sodium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	ND	ND	ND	ND	ND	ND	0.11	1.5	2.0	ND	0.11	0.22	0.14	15.6	12.9	--	--	0.15	2.3	0.13	0.19	ND
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	314	11.5	162	365	219	207	107	619	654	141	114	137	86.1	316	1040	--	--	82.8	173	182	93.8	427

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	C-82-1	C-82-2	C-82-3	C-83-1	C-83-2	C-83-3	C-84-1	C-84-2	C-84A-3	C-85-1	C-85-2	C-85-3	C-86-1	C-86-2	C-86-3	C-87-1	C-87-2	C-87-3	C-88-1	C-88-2	C-88-3	C-89-1
Location	C-82	C-82	C-82	C-83	C-83	C-83	C-84	C-84	C-84A	C-85	C-85	C-85	C-86	C-86	C-86	C-87	C-87	C-87	C-88	C-88	C-88	C-89
Date Sampled	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/21/97	4/21/97	4/21/97	4/21/97	4/21/97	4/21/97	4/22/97	4/22/97	4/22/97	4/22/97	4/22/97	4/22/97	4/22/97
Sampling Depth [ft bgs]	0	3	14.5	0	3	5	0	3	6	0	4	12	0	4	13	0	2.5	11.5	0	4.5	11.5	0
VOCs																						
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene Chloride)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m&p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCBs																						
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	C-82-1	C-82-2	C-82-3	C-83-1	C-83-2	C-83-3	C-84-1	C-84-2	C-84A-3	C-85-1	C-85-2	C-85-3	C-86-1	C-86-2	C-86-3	C-87-1	C-87-2	C-87-3	C-88-1	C-88-2	C-88-3	C-89-1
Location	C-82	C-82	C-82	C-83	C-83	C-83	C-84	C-84	C-84A	C-85	C-85	C-85	C-86	C-86	C-86	C-87	C-87	C-87	C-88	C-88	C-88	C-89
Date Sampled	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/20/97	4/21/97	4/21/97	4/21/97	4/21/97	4/21/97	4/21/97	4/22/97	4/22/97	4/22/97	4/22/97	4/22/97	4/22/97	4/22/97
Sampling Depth [ft bgs]	0	3	14.5	0	3	5	0	3	6	0	4	12	0	4	13	0	2.5	11.5	0	4.5	11.5	0
PAHs																						
Acenaphthene	0.43	1.9	ND	ND	0.65	5.9	0.33	24.3	ND	0.38	16.6	0.32	22.1	4.9	ND	0.65	3.6	2.4	0.30	1.3	ND	ND
Acenaphthylene	0.42	ND	ND	ND	0.39	ND	0.19 J	ND	0.14 J	0.17 J	ND	ND	ND	ND	ND	0.33	0.30 J	ND	ND	0.45	ND	ND
Anthracene	1.1	3.0	0.77	ND	2.0	9.3	0.96	62.6	0.30	1.0	25.5	0.99	53.4	7.6	0.31	2.0	5.1	5.5	0.68	3.4	0.16 J	ND
Benzo(a)anthracene	3.3	5.8	1.8	0.45	5.6	16.9	3.3	76.1	0.74	3.4	40.3	2.3	98.3	14.1	1.4	7.2	7.2	11.3 J	2.3	14.1	0.65	0.23
Benzo(a)pyrene	3.6	5.2	1.8	0.43	5.0	15.2	3.4	53.6	0.71	3.5	33.2	2.2	86.5	13.2	1.3	7.8	6.9	8.9	2.3	14.9	0.69	0.26
Benzo(b)fluoranthene	5.1	7.1	2.6	0.62	6.9	17.4	4.1	64.8	0.72	4.2	43.0	2.5	108	16.5	1.7	11.0	8.0	10.2	2.8	18.5	0.91	0.26
Benzo(g,h,i)perylene	1.2	1.5	ND	ND	1.3	8.5	1.1	17.0	0.19 J	1.4 J	12.0	0.83	22.4	3.5	0.37	2.2	1.6	6.1	0.93	6.1	0.19 J	0.11
Benzo(k)fluoranthene	2.0	3.2	1.2	0.29	3.2	7.7	1.8	28.1	0.36	1.9	17.0	1.2	46.4	7.9	0.83	4.3	3.8	5.0	1.1 J	6.5	0.41	0.13
Chrysene	3.4	5.4	1.8	0.46	5.2	16.2	3.5	67.5	0.78	3.4	38.8	2.2	93.3	13.5	1.3	6.9	7.1	10.4	2.3	13.5	0.67	0.25
Dibenzo(a,h)anthracene	0.36 J	0.50 J	ND	ND	0.49	2.4	0.41	6.4	ND	0.46	4.3	0.28 J	5.7	1.3	0.14 J	0.69	0.61	1.9	0.32	2.0	ND	ND
Fluoranthene	6.1	14.6	3.8	0.80	12.5	38.4	6.0	164	1.4	6.5	96.7	4.8	211	33.8	2.6	12.7	16.7	23.7	4.3	25.7	1.2	0.42
Fluorene	0.34	2.0	ND	ND	0.77	4.5	0.30	31.7	ND	0.34	17.2	0.32	23.7	4.6	ND	0.55	4.1	2.4	0.22 J	1.1	ND	ND
Indeno(1,2,3-cd)pyrene	1.2	1.6	ND	ND	1.6	8.3	1.3	17.6	0.22	1.4	12.8	0.91	28.9	4.0	0.43	2.4	2.0	6.3	1.0	7.0	0.21 J	0.11
Naphthalene	0.29	1.5	ND	ND	ND	ND	ND	22.5	ND	ND	ND	ND	10.0	3.2	ND	ND	3.0	1.1	ND	0.37 J	ND	ND
Phenanthrene	3.1	12.2	3.5	0.47	7.4	32.7	3.3	188	1.0	3.6	92.3	3.2	161	27.3	1.4	6.5	18.3	23.0	2.3	11.1	0.58	0.21
Pyrene	6.4	12.7	3.8	0.90	11.6	33.0	6.1	145	1.8	5.8	74.5	4.3	184	28.3	2.6	12.5	14.7	21.6	4.1	25.4	1.2	0.46
Total PAHs	38.3	78	21	4.42	64.7	216	36.1	969	8.41	37.5	524	26.3	1150	184	14.2	77.7	103	140	25	151	6.88	2.44
Metals																						
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	ND	2.7	ND	2.8	ND	ND	ND	3.7	ND	ND	ND	ND	ND	2.5	ND	ND	ND	5.5	ND	ND	ND	ND
Arsenic	10.3	6.9	17.6	2.5	5.1	14.1	6.9	8.1	5.7	4.7	4.5	9.4	27.5	10.9	6.2	6.3	6.2	86.8	2.3	18.1	25.7	5.8
Barium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	0.37	0.51	ND	0.30	0.33	0.41	0.41	0.77	0.55	0.43	0.34	0.64	0.39	0.32	0.42	0.56	0.42	ND	0.46	0.26	0.49	0.29
Cadmium	ND	0.96	ND	ND	0.68	0.76	0.73	0.96	ND	0.47	0.98	0.68	1.2	1.7	0.41	0.65	ND	1.2	0.39	5.3	ND	ND
Calcium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	26.5	24.3	12.0	37.9	19.1	25.5	28.4	34.0	24.6	20.2	21.6	18.7	27.8	42.8	16.7	27.7	12.8	27.5	25.8	14.2	11.1	17.8
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	61.1	50.9	71.5	29.9	563	69.0	70.1	84.4	22.4	41.1	45.1	431	88.5	70.7	128	74.5	512	804	52.1	130	138	19.3
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	127	575	146	64.7	295	243	232	376	39.5	141	236	528	339	300	517	231	97.5	1430	90.3	154	332	39.5
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	0.37	0.39	0.060	0.30	0.38	0.30	0.51	0.58	0.060	0.23	0.31	1.2	0.020	0.52	1.0	0.33	0.41	1.8	0.18	0.72	1.0	0.24
Nickel	23.4	12.7	14.9	28.2	19.3	26.5	35.8	34.0	25.4	17.1	20.7	24.9	24.8	36.9	20.3	28.1	13.8	45.9	22.0	37.5	15.7	17.2
Potassium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	ND	ND	ND	ND	ND	ND	ND	3.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.3	ND	ND	ND	ND
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	0.10	ND	0.55	0.22	0.11	0.17	0.10	0.12	0.11	0.12	ND	ND	ND	ND	0.15	0.10	ND	0.12	0.24	0.22	0.17	0.11
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	226	473	35.2	124	397	370	330	588	83.2	214	332	321	400	534	277	359	91.9	280	228	219	80.3	61.8

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	C-89-2	C-89-3	C-90-1	C-90-2	C-90-3	C-91-1	C-91-2	C-91-3	C-92-1	C-92-2	C-92-3	C-93-1	C-93-2	C-93-3	C-94-1	C-94-2	C-94-3	C-95-1	C-95-2	C-95-3	C-96-1	C-96-2
Location	C-89	C-89	C-90	C-90	C-90	C-91	C-91	C-91	C-92	C-92	C-92	C-93	C-93	C-93	C-94	C-94	C-94	C-95	C-95	C-95	C-96	C-96
Date Sampled	4/22/97	4/22/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/24/97	4/24/97	4/24/97	4/24/97	4/24/97
Sampling Depth [ft bgs]	4	13.5	0	6	13	0	3	13.5	0	3.5	10.5	0	3.5	16	0	3.5	15	0	4.5	11.5	0	3.5
VOCs																						
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene Chloride)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	ND	ND	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m&p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCBs																						
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPL[illegible]S [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	C-89-2	C-89-3	C-90-1	C-90-2	C-90-3	C-91-1	C-91-2	C-91-3	C-92-1	C-92-2	C-92-3	C-93-1	C-93-2	C-93-3	C-94-1	C-94-2	C-94-3	C-95-1	C-95-2	C-95-3	C-96-1	C-96-2
Location	C-89	C-89	C-90	C-90	C-90	C-91	C-91	C-91	C-92	C-92	C-92	C-93	C-93	C-93	C-94	C-94	C-94	C-95	C-95	C-95	C-96	C-96
Date Sampled	4/22/97	4/22/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/23/97	4/24/97	4/24/97	4/24/97	4/24/97	4/24/97
Sampling Depth [ft bgs]	4	13.5	0	6	13	0	3	13.5	0	3.5	10.5	0	3.5	16	0	3.5	15	0	4.5	11.5	0	3.5
PAHs																						
Acenaphthene	ND	1.1	--	--	--	--	--	--	--	1.4	ND	ND	0.48	ND	0.30	3.2	ND	ND	1.3	3.3	0.45	1.8
Acenaphthylene	0.60	ND	--	--	--	--	--	--	--	0.14 J	ND	ND	0.16 J	ND	0.26	0.65	ND	ND	0.16 J	ND	ND	0.51
Anthracene	ND	2.5	ND	0.53	19.9	4.0	1.3	0.69	4.4	2.5	ND	ND	1.2	ND	1.0	4.4	ND	ND	1.5	5.0	0.66	3.7 J
Benzo(a)anthracene	0.62	4.8	0.14 J	1.5	26.9	11.1	3.0	2.0	10.4	6.7	0.32	0.27	3.0	ND	4.6	8.9	0.16 J	ND	3.9	7.3	1.1	7.9
Benzo(a)pyrene	1.2	4.4	0.13 J	0.14	24.8	12.4	3.1	2.4	10.0	6.9	0.31	0.28	2.8	ND	4.4	8.6	0.16 J	ND	4.0	5.4	1.0	6.8
Benzo(b)fluoranthene	1.4	5.2	0.14 J	2.2	26.4	12.5	4.0	3.4	11.3	10.9	0.38	0.30	3.8	ND	5.3	12.1	0.17 J	ND	4.7	8.1	1.2	10.3
Benzo(g,h,i)perylene	0.45	1.8	ND	0.47	17.0	6.8	0.85	0.84	4.6	1.8	0.21 J	0.21 J	0.67	ND	1.6	2.0	0.12	ND	2.9	1.2	0.74	1.6
Benzo(k)fluoranthene	0.56	2.1	ND	0.75	10.6	6.4	1.8	1.2	5.3	3.9	0.16 J	0.16 J	1.7	ND	2.1	4.9	ND	ND	1.9 J	3.7	0.49	3.7
Chrysene	0.76	4.8	ND	1.5	25.3	11.7	3.1	2.1	9.8	7.5	0.36	0.29	2.8	ND	4.6	9.4	0.15 J	ND	4.0	6.5	1.1	7.6
Dibenzo(a,h)anthracene	ND	0.56	ND	0.17 J	3.8	2.1	0.30	0.28	1.4	0.56	ND	ND	0.22	ND	0.56	0.76	ND	ND	0.77	0.51	0.19 J	0.63
Fluoranthene	1.5	10.7	0.19 J	3.2	69.2	19.2	6.6	3.7	19.6	20.1	0.62	0.45	6.6	0.23 J	7.4	22.5	0.24	0.15 J	7.9	19.2	2.5	20.6
Fluorene	0.54	1.3	--	--	--	--	--	--	--	1.6	ND	ND	0.52	ND	0.27	3.3	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.53	2.0	ND	0.57	15.6	7.0	0.97	0.96	4.8	2.1	0.19 J	0.19 J	0.83	ND	1.8	2.4	0.13 J	ND	2.6	1.7	0.71	2.0
Naphthalene	ND	1.0	--	--	--	--	--	--	--	0.15 J	ND	ND	0.33	ND	ND	1.9	ND	ND	1.3	ND	0.14 J	0.51
Phenanthrene	ND	9.7	ND	2.2	79.8	10.9	4.7	1.5	14.1	15.1	0.37	0.22	4.6	0.17 J	3.3	21.1	ND	ND	6.2	17.1	2.5	15.8
Pyrene	2.6	9.9	0.19 J	2.9	63.5	16.9	6.6	3.5	17.0	18.3	0.58	0.43	6.4	0.22 J	6.9	21.8	0.23	0.15 J	7.1	14.6	2.2	20.4
Total PAHs	10.7	61.8	0.79	16.2	383	121	36.3	22.5	113	99.6	3.5	2.8	36.1	0.62	44.5	128	1.36	0.3	50.1	93.7	15.1	104
Metals																						
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	9.8	ND	2.9	ND	8.1	ND	ND	ND	ND	ND	2.8	ND	ND	3.3	ND	ND	ND	ND	ND	ND	ND	4.9
Arsenic	1.8	3.1	1.3	3.9	1560	4.0	7.0	29.4	3.8	4.1	27.6	3.7	5.1	881	4.5	6.7	24.9	3.8	5.0	6.4	5.5	210
Barium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	0.48	0.21	0.43	0.37	0.27	0.77	0.42	565	0.72	0.26	0.56	0.40	0.33	0.50	0.44	0.58	0.64	0.43	0.39	0.13	0.46	0.23
Cadmium	26.7	ND	ND	0.35	0.56	ND	7.7	0.32	0.43	0.68	0.71	ND	0.44	3.5	0.34	2.5	0.32	ND	0.45	0.25	ND	0.26
Calcium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	105	9.1	40.5	18.4	32.2	23.2	42.4	24.8	29.8	19.8	202	21.0	25.0	85.8	21.0	32.3	23.0	34.8	34.1	8.6	47.2	37.4
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	105	34.6	37.0	34.3	532	150	95.8	42.8	138	47.2	41.6	25.6	46.1	325	36.8	89.2	21.7	30.7	70.0	49.1	41.2	171
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	221	102	18.5	59.3	6300	206	327	116	195	438	1130	41.5	139	724	96.5	382	57.6	35.1	93.2	86.8	134	1.7
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	0.50	0.68	0.060	0.15	34.7	0.23	1.1	0.54	0.24	0.32	0.41	0.17	0.39	2.9	0.22	0.42	0.10	0.070	0.26	0.18	0.17	4.1
Nickel	26.0	27.2	27.7	18.4	22.0	37.8	57.8	36.0	34.4	28.5	22.7	21.1	26.2	183	20.0	40.8	64.1	30.4	23.8	5.7	45.9	17.5
Potassium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	ND	4.1	ND	ND	38.4	ND	ND	ND	ND	ND	ND	ND	ND	4.5	ND	ND	ND	ND	ND	ND	ND	3.6
Silver	ND	ND	ND	ND	2.8	ND	ND	ND	ND	ND	ND	ND	ND	0.89	ND	ND	ND	ND	ND	ND	ND	2.9
Sodium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	ND	0.56	0.32	ND	8.7	0.10	0.11	0.22	0.13	ND	0.13	0.22	0.13	2.3	0.16	ND	0.13	0.26	0.22	0.20	0.32	6.5
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	0.70	59.9	102	80.6	304	897	609	120	815	288	227	66.5	166	1650	172	362	99.3	77.8	143	84.6	118	174

SOIL SAMPL[illegible]TS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	C-96-3	C-97-1	C-97-2	C-98-1	C-98-2	C-98-3	HD-1A-1	HD-1A-2	HD-1B-1	HD-1B-2	HD-2A-1	HD-2A-2	HD-2B-1	HD-2B-2	HD-2C-1	HD-2C-2	HD-2D-1	HD-2D-2	HD-2E-1	HD-2E-2
Location	C-96	C-97	C-97	C-98	C-98	C-98	HD-1A	HD-1A	HD-1B	HD-1B	HD-2A	HD-2A	HD-2B	HD-2B	HD-2C	HD-2C	HD-2D	HD-2D	HD-2E	HD-2E
Date Sampled	4/24/97	4/24/97	4/24/97	4/24/97	4/24/97	4/24/97	3/18/97	3/18/97	3/19/97	3/19/97	4/7/97	4/7/97	4/2/97	4/2/97	4/7/97	4/7/97	4/2/97	4/2/97	4/2/97	4/2/97
Sampling Depth [ft bgs]	13	0	6	0	3.5	7.5	5.5	13	5.5	14.5	5.5	13.5	7.5	13.5	5.5	14.5	7.5	12.5	7.5	12.5
VOCs																				
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene Chloride)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m&p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCBs																				
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	--	--	--	--	--	--	ND	ND	ND	ND	9.4	ND	1.8	ND	0.60	ND	ND	ND	ND	ND

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	C-96-3	C-97-1	C-97-2	C-98-1	C-98-2	C-98-3	HD-1A-1	HD-1A-2	HD-1B-1	HD-1B-2	HD-2A-1	HD-2A-2	HD-2B-1	HD-2B-2	HD-2C-1	HD-2C-2	HD-2D-1	HD-2D-2	HD-2E-1	HD-2E-2
Location	C-96	C-97	C-97	C-98	C-98	C-98	HD-1A	HD-1A	HD-1B	HD-1B	HD-2A	HD-2A	HD-2B	HD-2B	HD-2C	HD-2C	HD-2D	HD-2D	HD-2B	HD-2E
Date Sampled	4/24/97	4/24/97	4/24/97	4/24/97	4/24/97	4/24/97	3/18/97	3/18/97	3/19/97	3/19/97	4/7/97	4/7/97	4/2/97	4/2/97	4/7/97	4/7/97	4/2/97	4/2/97	4/2/97	4/2/97
Sampling Depth [ft bgs]	13	0	6	0	3.5	7.5	5.5	13	5.5	14.5	5.5	13.5	7.5	13.5	5.5	14.5	7.5	12.5	7.5	12.5
PAHs																				
Acenaphthene	ND	ND	1.2	0.56	0.51	632	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	ND	ND	0.25	ND	ND	208	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	0.14 J	ND	2.5	1.1	11.9	1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	0.42	0.44	4.7	3.3	21.4	1090	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	0.43	0.45	4.4	3.4	19.1	819	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	0.56	0.63	6.5	4.6	27.2	971	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	0.37	ND	1.1	1.2	5.6	210	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	0.25	0.26	2.7	2.0	9.3	419	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	0.46	0.43	4.8	3.5	21.7	1020	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	ND	ND	0.41	0.39 J	1.9	74.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	0.85	0.82	12.2	7.0	47.9	3110	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	ND	ND	ND	0.37 J	4.4	807	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	0.36	0.14 J	1.3	1.3	6.5	233	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	ND	ND	0.55	ND	1.5	124	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	0.61	0.42	10.3	4.3	34.8	3680	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	0.79	0.83	11.5	6.3	43.3	2600	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PAHs	5.24	4.42	64.6	39.3	257	17300	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Metals																				
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	173	6.2	16.5	5.5	33.9	111	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	0.10	0.49	0.29	0.46	0.23	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	ND	ND	0.27	ND	0.70	1.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	8.8	23.3	21.4	25.5	16.9	28.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	87.0	36.9	42.8	51.2	77.2	363	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	381	82.7	76.1	408	279	1120	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	1.8	0.19	0.29	0.28	1.7	2.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	4.3	33.6	15.5	21.6	15.6	34.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	ND	ND	ND	ND	ND	4.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	ND	ND	ND	ND	ND	0.88 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	1.6	0.12	0.14	ND	0.19	0.71	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	35.0	83.7	107	157	167	433	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	HD-2F-1	HD-2F-2	HD-3C-1	HD-3C-2	HD-3D-1	HD-3D-2	HF-2-1	HF-2-2	HF-3-1	HF-3-2	HF-4-1	HF-4-2	HF-5-1	HF-5-2	LB-1A-1	LB-1A-2	LB-1B-1	LB-1B-2	LB-1C-1	LB-1C-2
Location	HD-2F	HD-2F	HD-3C	HD-3C	HD-3D	HD-3D	HF-2	HF-2	HF-3	HF-3	HF-4	HF-4	HF-5	HF-5	LB-1A	LB-1A	LB-1B	LB-1B	LB-1C	LB-1C
Date Sampled	4/3/97	4/3/97	4/2/97	4/2/97	4/2/97	4/2/97	3/4/97	3/4/97	3/4/97	3/4/97	3/6/97	3/6/97	3/4/97	3/4/97	3/17/97	3/17/97	3/17/97	3/17/97	3/17/97	3/17/97
Sampling Depth [ft bgs]	8	13.5	5.5	13	7.5	13.5	0	7.5	9	13.5	8	13.5	10.5	14.5	5	9	5	9	5	9
VOCs																				
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene Chloride)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m&p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCBs																				
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	ND	ND	0.61	54.3	6810	963	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	HD-2F-1	HD-2F-2	HD-3C-1	HD-3C-2	HD-3D-1	HD-3D-2	HF-2-1	HF-2-2	HF-3-1	HF-3-2	HF-4-1	HF-4-2	HF-5-1	HF-5-2	LB-1A-1	LB-1A-2	LB-1B-1	LB-1B-2	LB-1C-1	LB-1C-2
Location	HD-2F	HD-2F	HD-3C	HD-3C	HD-3D	HD-3D	HF-2	HF-2	HF-3	HF-3	HF-4	HF-4	HF-5	HF-5	LB-1A	LB-1A	LB-1B	LB-1B	LB-1C	LB-1C
Date Sampled	4/3/97	4/3/97	4/2/97	4/2/97	4/2/97	4/2/97	3/4/97	3/4/97	3/4/97	3/4/97	3/6/97	3/6/97	3/4/97	3/4/97	3/17/97	3/17/97	3/17/97	3/17/97	3/17/97	3/17/97
Sampling Depth [ft bgs]	8	13.5	5.5	13	7.5	13.5	0	7.5	9	13.5	8	13.5	10.5	14.5	5	9	5	9	5	9
PAHs																				
Acenaphthene	--	--	--	--	--	--	0.00020	0.00035	0.00040	0.00022	ND	ND	ND	0.00024	0.0021	0.00020	ND	ND	ND	ND
Acenaphthylene	--	--	--	--	--	--	0.00039	0.00019	ND	ND	ND	ND	0.00018	0.068	0.00029	ND	ND	ND	ND	ND
Anthracene	--	--	--	--	--	--	0.00067	0.0011	0.00094	0.00066	ND	ND	0.00043	0.00088	0.0046	0.00048	ND	ND	0.00022	ND
Benzo(a)anthracene	--	--	--	--	--	--	0.0035	0.0019	0.0012	0.00073	ND	ND	0.00092	0.00058	0.015	0.0015	ND	ND	0.0015	ND
Benzo(a)pyrene	--	--	--	--	--	--	0.0036	0.0019	0.00091	0.00059	ND	0.000070	0.00080	0.00026	0.015	0.0015	ND	ND	0.0017	ND
Benzo(b)fluoranthene	--	--	--	--	--	--	0.0055	0.0027	0.0014	0.00078	ND	0.000070	0.0016	0.00053	0.022	0.0020	ND	ND	0.0024	ND
Benzo(g,h,i)perylene	--	--	--	--	--	--	0.0010	0.00057	0.00025	0.00016	ND	ND	0.00019	0.000060	0.0025	0.00028	ND	ND	0.00033	ND
Benzo(k)fluoranthene	--	--	--	--	--	--	0.0022	0.0011	0.00053	0.00042	ND	ND	0.00056	0.00021	0.0081	0.00095	ND	ND	0.00097	ND
Chrysene	--	--	--	--	--	--	0.0034	0.0018	0.0012	0.00072	ND	ND	0.00094	0.00052	0.014	0.0015	ND	ND	0.0016	ND
Dibenzo(a,h)anthracene	--	--	--	--	--	--	0.00037	0.00019	ND	ND	ND	ND	ND	ND	0.0010	ND	ND	ND	ND	ND
Fluoranthene	--	--	--	--	--	--	0.0057	0.0046	0.0034	0.0019	0.000090	0.00012	0.0015	0.0021	0.030	0.0032	ND	ND	0.0027	ND
Fluorene	--	--	--	--	--	--	0.00017	0.00046	0.00055	0.00031	ND	ND	ND	0.00034	0.0018	0.00015	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	0.0012	0.00065	0.00030	0.00020	ND	ND	0.00026	0.000080	0.0034	0.00037	ND	ND	0.00042	ND
Naphthalene	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	0.00012	0.00024	0.0011	ND	ND	ND	ND	ND
Phenanthrene	--	--	--	--	--	--	0.0021	0.0032	0.0031	0.0018	0.000070	ND	0.00069	0.0020	0.016	0.0018	ND	ND	0.00096	ND
Pyrene	--	--	--	--	--	--	0.0058	0.0039	0.0027	0.0015	0.000080	0.00011	0.0015	0.0015	0.025	0.0027	ND	ND	0.0025	ND
Total PAHs	--	--	--	--	--	--	0.0358	0.0247	0.0168	0.01	0.00024	0.00037	0.0097	0.0772	0.162	0.0167	0	0	0.0153	0
Metals																				
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	ND	ND	--	ND	ND	ND	ND	ND	--	--	--	--	--	--
Arsenic	--	--	--	--	--	--	7.2	7.0	6.6	3.8	4.9	5.2	10.7	4.4	ND	ND	ND	ND	--	ND
Barium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	0.39	0.44	0.70	0.49	0.71	0.62	451	0.32	--	--	--	--	--	--
Cadmium	--	--	--	--	--	--	1.0	0.32	0.59	0.70	ND	ND	ND	ND	ND	ND	1.3	0.46	ND	ND
Calcium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	--	--	--	--	--	--	19.1	13.5	21.0	16.9	36.2	32.6	9.4	7.3	--	--	--	--	--	--
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	85.8	109	137	116	42.1	31.7	71.5	48.5	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	--	--	--	--	--	--	148	855	151	424	136	124	489	251	--	--	--	--	--	--
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	0.44	0.43	2.2	3.3	0.26	0.53	0.65	0.21	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	26.0	16.7	16.6	23.0	38.7	28.0	13.9	8.7	ND	ND	ND	ND	ND	ND
Potassium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	2.4	ND	--	--	--	--	--	--
Silver	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	ND	0.23	0.39	0.12	0.34	0.16	0.20	0.080	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	153	120	86.6	538	301	169	71.1	17.4	--	--	--	--	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	LB-2A	LB-2B	LB-2C	LB-3A-1	LB-3A-2	LB-3B-1	LB-3B-2	LB-3C-1	LB-3C-2	LB-3D-1	LB-3D-2	LD-1-1	LD-1-2	LHA-1A-1	LHA-1A-2	LHA-1B-1	LHA-1B-2	LHA-1C-1	LHA-1C-2
Location	LB-2A	LB-2B	LB-2C	LB-3A	LB-3A	LB-3B	LB-3B	LB-3C	LB-3C	LB-3D	LB-3D	LD-1	LD-1	LHA-1A	LHA-1A	LHA-1B	LHA-1B	LHA-1C	LHA-1C
Date Sampled	2/26/97	2/26/97	2/26/97	2/28/97	2/28/97	2/28/97	2/28/97	2/27/97	2/27/97	2/27/97	2/27/97	3/5/97	3/5/97	3/5/97	3/5/97	4/2/97	4/2/97	4/2/97	4/2/97
Sampling Depth [ft bgs]	1	1	1	9	13.5	6	11.5	9	14.5	9	15.5	5.5	11.5	0.5	7.5	2	7	2.5	7.5
VOCs																			
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Dichloromethane (Methylene Chloride)	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
trans-1,2-dichloroethene	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
m&p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	0	0	--	--	--	--	--	--
PCBs																			
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	ND	4.3	ND	ND	ND	ND

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	LB-2A	LB-2B	LB-2C	LB-3A-1	LB-3A-2	LB-3B-1	LB-3B-2	LB-3C-1	LB-3C-2	LB-3D-1	LB-3D-2	LD-1-1	LD-1-2	LHA-1A-1	LHA-1A-2	LHA-1B-1	LHA-1B-2	LHA-1C-1	LHA-1C-2
Location	LB-2A	LB-2B	LB-2C	LB-3A	LB-3A	LB-3B	LB-3B	LB-3C	LB-3C	LB-3D	LB-3D	LD-1	LD-1	LHA-1A	LHA-1A	LHA-1B	LHA-1B	LHA-1C	LHA-1C
Date Sampled	2/26/97	2/26/97	2/26/97	2/28/97	2/28/97	2/28/97	2/28/97	2/27/97	2/27/97	2/27/97	2/27/97	3/5/97	3/5/97	3/5/97	3/5/97	4/2/97	4/2/97	4/2/97	4/2/97
Sampling Depth [ft bgs]	1	1	1	9	13.5	6	11.5	9	14.5	9	15.5	5.5	11.5	0.5	7.5	2	7	2.5	7.5
PAHs																			
Acenaphthene	0.00054	0.014	0.0066	0.00017	0.00081	ND	0.00058	0.0050	0.0028	0.00043	0.00016	0.21 J	ND	--	--	--	--	--	--
Acenaphthylene	0.00022	ND	0.00043	ND	0.00055	ND	0.00014	0.0016	0.00087	ND	ND	ND	ND	--	--	--	--	--	--
Anthracene	0.0017	0.029	0.014	0.00051	0.0020	0.000080	0.0020	0.0049	0.0018	0.0012	0.00031	0.55	ND	--	--	--	--	--	--
Benzo(a)anthracene	0.0055	0.040	0.020	0.0013	0.020	0.00025	0.0041	0.0031	0.0012	0.0038	0.0013	1.8	0.39	--	--	--	--	--	--
Benzo(a)pyrene	0.0061	0.033	0.019	0.0014	0.026	0.00024	0.0036	0.0026	0.0010	0.0037	0.0016	1.8	0.51	--	--	--	--	--	--
Benzo(b)fluoranthene	0.0074	0.040	0.023	0.0018	0.037	0.00032	0.0043	0.0032	0.00092	0.0045	0.0019	2.2	0.71	--	--	--	--	--	--
Benzo(g,h,i)perylene	0.0022	0.011	0.0052	0.00054	0.0056	ND	0.0018	0.0010	ND	0.0022	0.00093	0.71	0.16	--	--	--	--	--	--
Benzo(k)fluoranthene	0.0031	0.016	0.011	0.00073	0.013	0.00014	0.0021	0.0012	ND	0.0023	0.00098	0.92	0.32	--	--	--	--	--	--
Chrysene	0.0056	0.037	0.019	0.0015	0.021	0.00025	0.0039	0.0041	0.0017	0.0039	0.0015	1.8	0.45	--	--	--	--	--	--
Dibenzo(a,h)anthracene	0.00074	0.0041	0.0018	0.00023	0.0029	ND	0.00060	ND	ND	0.00076	0.00032	0.29	ND	--	--	--	--	--	--
Fluoranthene	0.011	0.094	0.052	0.0026	0.020	0.00053	0.011	0.0055	0.0011	0.0084	0.0023	3.8	0.50	--	--	--	--	--	--
Fluorene	0.00056	0.016	0.0078	0.00022	0.00049	ND	0.00061	0.012	0.0060	0.00045	ND	0.24	0.23	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	0.0025	0.013	0.0060	0.00063	0.0080	0.000080	0.0020	0.00097	ND	0.0024	0.00094	0.81	0.19	--	--	--	--	--	--
Naphthalene	ND	0.0035	0.0013	ND	0.00018	ND	ND	0.0074	0.0034	ND	ND	ND	ND	--	--	--	--	--	--
Phenanthrene	0.0062	0.086	0.040	0.0021	0.0067	0.00033	0.0078	0.030	0.013	0.0054	0.0013	2.2	0.18	--	--	--	--	--	--
Pyrene	0.0095	0.074	0.039	0.0022	0.021	0.00049	0.0068	0.0089	0.0035	0.0066	0.0019	3.1	0.53	--	--	--	--	--	--
Total PAHs	0.0626	0.51	0.266	0.0159	0.185	0.0027	0.0514	0.0913	0.0375	0.0461	0.0154	20.4	4.17	--	--	--	--	--	--
Metals																			
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Arsenic	ND	ND	ND	--	--	--	--	33.4	ND	ND	ND	6.0	4.1	--	--	--	--	--	--
Barium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--	--	--	0.41	0.51	--	--	--	--	--	--
Cadmium	ND	ND	ND	--	--	--	--	0.61	ND	ND	ND	ND	0.030	--	--	--	--	--	--
Calcium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	--	--	--	--	--	--	--	--	--	--	--	11.2	16.4	--	--	--	--	--	--
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	--	--	--	--	--	28.2	21.3	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	--	--	--	--	--	--	--	--	--	--	--	46.8	19.3	--	--	--	--	--	--
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--	--	--	0.30	0.10	--	--	--	--	--	--
Nickel	ND	ND	ND	--	--	--	--	--	ND	ND	ND	13.4	16.1	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--	--	--	--	--	ND	ND	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	0.10	ND	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--	--	58.9	45.2	--	--	--	--	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	LHA-1D-1	LHA-1D-2	LHA-1D-3	LHA-1E-1	LHA-1E-2	LHA-1E-3	PB-1-1	PB-1-2	PB-2-1	PB-2-2	PB-3-1	PB-3-2	PB-4-1	PB-4-2	PB-5-1	PB-5-2	PB-6-1	PB-6-2	PB-7-1	PB-7-2
Location	LHA-1D	LHA-1D	LHA-1D	LHA-1E	LHA-1E	LHA-1E	PB-1	PB-1	PB-2	PB-2	PB-3	PB-3	PB-4	PB-4	PB-5	PB-5	PB-6	PB-6	PB-7	PB-7
Date Sampled	4/2/97	4/2/97	4/2/97	4/2/97	4/2/97	4/2/97	3/3/97	3/3/97	3/3/97	3/3/97	3/3/97	3/3/97	2/28/97	2/28/97	2/28/97	2/28/97	3/4/97	3/4/97	3/5/97	3/5/97
Sampling Depth [ft bgs]	0	2.5	7.5	0	3	7.5	3.5	11.5	3	10.5	2	11.5	1	5.5	0.5	6.5	0.5	7.5	2	8.5
VOCs																				
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene Chloride)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m&p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCBs																				
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	14.6	0.70	2.3	7.0	0.72	1.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	LHA-1D-1	LHA-1D-2	LHA-1D-3	LHA-1E-1	LHA-1E-2	LHA-1E-3	PB-1-1	PB-1-2	PB-2-1	PB-2-2	PB-3-1	PB-3-2	PB-4-1	PB-4-2	PB-5-1	PB-5-2	PB-6-1	PB-6-2	PB-7-1	PB-7-2
Location	LHA-1D	LHA-1D	LHA-1D	LHA-1E	LHA-1E	LHA-1E	PB-1	PB-1	PB-2	PB-2	PB-3	PB-3	PB-4	PB-4	PB-5	PB-5	PB-6	PB-6	PB-7	PB-7
Date Sampled	4/2/97	4/2/97	4/2/97	4/2/97	4/2/97	4/2/97	3/3/97	3/3/97	3/3/97	3/3/97	3/3/97	3/3/97	2/28/97	2/28/97	2/28/97	2/28/97	3/4/97	3/4/97	3/5/97	3/5/97
Sampling Depth [ft bgs]	0	2.5	7.5	0	3	7.5	3.5	11.5	3	10.5	2	11.5	1	5.5	0.5	6.5	0.5	7.5	2	8.5
PAHs																				
Acenaphthene	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	0.00049	0.00015	0.0012	ND	0.00031	ND	ND	ND
Acenaphthylene	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND	0.00029	ND	0.00027	ND	ND	ND
Anthracene	--	--	--	--	--	--	0.000090	--	0.00012	ND	0.00039	ND	0.0016	0.00023	0.0030	ND	0.0010	ND	ND	ND
Benzo(a)anthracene	--	--	--	--	--	--	0.00025	0.00045	0.00016	ND	0.00030	ND	0.0043	0.00087	0.0063	0.00075	0.0029	0.00015	0.00020	ND
Benzo(a)pyrene	--	--	--	--	--	--	0.00020	0.00046	0.00010	ND	0.00029	ND	0.0041	0.00087	0.0047	0.00069	0.0028	0.00018	0.00024	ND
Benzo(b)fluoranthene	--	--	--	--	--	--	0.00029	0.00056	0.000090	ND	0.00047	ND	0.0049	0.0011	0.0074	0.00085	0.0037	0.00019	0.00033	ND
Benzo(g,h,i)perylene	--	--	--	--	--	--	0.000060	0.00013	ND	ND	0.00010	ND	0.0015	0.00037	0.0014	0.00035	0.00086	0.00014	0.000090	ND
Benzo(k)fluoranthene	--	--	--	--	--	--	0.00011	0.00028	0.00010	ND	0.00017	ND	0.0024	0.00056	0.0030	0.00040	0.0018	ND	0.00012	ND
Chrysene	--	--	--	--	--	--	0.00025	0.00045	0.00019	ND	0.00030	ND	0.0039	0.00096	0.0056	0.00076	0.0028	0.00014	0.00023	ND
Dibenzo(a,h)anthracene	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	0.00049	ND	0.00051	ND	0.00031	ND	ND	ND
Fluoranthene	--	--	--	--	--	--	0.00050	0.00090	0.00035	ND	0.00072	ND	0.0095	0.0018	0.014	0.0016	0.0060	0.00022	0.00032	ND
Fluorene	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	0.00042	ND	0.0016	ND	0.00037	ND	ND	ND
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	0.000070	0.00016	0.000070	ND	0.00013	ND	0.0016	0.00036	0.0015	0.00038	0.00098	0.00014	0.00010	ND
Naphthalene	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	--	--	--	--	--	--	0.00036	0.00049	0.00013	ND	0.00041	ND	0.0075	0.0017	0.013	0.00097	0.0033	ND	0.00013	ND
Pyrene	--	--	--	--	--	--	0.00043	0.00081	0.00030	ND	0.00055	ND	0.0080	0.0019	0.012	0.0012	0.0053	0.00020	0.00032	ND
Total PAHs	--	--	--	--	--	--	0.0026	0.0047	0.0016	0	0.0038	0	0.0507	0.0108	0.0755	0.0079	0.0327	0.0014	0.0021	0
Metals																				
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	--
Arsenic	--	--	--	--	--	--	5.0	13.9	2.7	27.8	4.2	10.1	16.4	21.6	12.0	9.4	10.8	7.6	--	--
Barium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	0.42	0.33	0.31	0.21	0.49	0.46	0.36	0.66	0.24	0.25	0.34	0.29	0.29	0.10
Cadmium	--	--	--	--	--	--	ND	2.3	0.56	ND	ND	ND	0.79	1.3	2.2	0.27	1.0	ND	ND	ND
Calcium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	--	--	--	--	--	--	62.4	14.0	11.2	8.4	29.7	11.5	11.5	17.5	15.5	10.7	13.8	5.8	--	--
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	63.3	214	16.8	46.7	39.1	31.2	116	57.4	90.8	38.3	64.5	28.6	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	--	--	--	--	--	--	0.12	338	0.30	53.8	36.7	31.4	164	1980	281	100	181	25.2	--	--
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	0.18	17.7	0.14	0.090	0.090	0.12	0.38	0.44	0.96	0.14	0.25	0.12	--	--
Nickel	--	--	--	--	--	--	30.3	20.4	51.4	9.1	63.0	15.6	19.4	19.9	28.8	14.0	17.3	13.4	--	--
Potassium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	ND	4.1	ND	3.0	ND	2.7	2.7	3.0	ND	ND	ND	ND	--	--
Silver	--	--	--	--	--	--	ND	1.8	1.3	ND	ND	0.21	ND	ND	ND	ND	ND	ND	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	0.12	0.25	ND	0.12	ND	ND	0.33	0.41	0.22	0.13	0.20	0.20	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	115	720	0.14	16.9	74.3	45.2	156	1330	280	85.8	138	25.4	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	PB-8-1	PB-8-2	QE001	QE002	QE003	QE004	QE005	QR-01	QR-02	QR-03	QR-04	SF-3A-1	SF-3A-2	SF-3A-3	SF-3B-1	SF-3B-2	SF-3B-3	SF-3C-1	SF-3C-2	SF-3C-3
Location	PB-8	PB-8	QE001	QE002	QE003	QE004	QE005	QR-01	QR-02	QR-03	QR-04	SF-3A	SF-3A	SF-3A	SF-3B	SF-3B	SF-3B	SF-3C	SF-3C	SF-3C
Date Sampled	3/5/97	3/5/97	3/27/92	3/27/92	3/27/92	3/27/92	3/27/92	3/27/96	3/27/96	3/27/96	3/27/96	2/24/97	3/17/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97
Sampling Depth [ft bgs]	1	8.5	0	0	0	0	0	--	1.5	0	--	0	3	5.5	0	3	5.5	0	3	5.5
VOCs																				
1,1,1-Trichloroethane	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	ND	ND	ND	8.0 J	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	0.35 J	0.68 J	ND	0.28 J	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	ND	--	ND	ND	--	--	--	--	--	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene Chloride)	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	0.67 J	2.1	ND	0.31 J	--	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--	--	0.26 J	0.51 J	ND	0.35 J	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	0.91 J	2.3	ND	0.63 J	--	--	--	--	--	--	--	--	--
trans-1,2-dichloroethene	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	0.68 U	0.93 U	ND	0.35 U	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
m&p-Xylene	--	--	--	--	--	--	--	2.0 U	3.5	ND	0.77 J	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	0.97 J	1.6	ND	0.35 J	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	5.84	11.6	0	11	--	--	--	--	--	--	--	--	--
PCBs																				
Aroclor-1016	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	--	--	5.0 U	74.0	5.0 U	5.0 U	2.0 U	ND	ND	ND	ND	0.33	ND	0.36	ND	ND	ND	0.28	0.20	8.3

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	PB-8-1	PB-8-2	QE001	QE002	QE003	QE004	QE005	QR-01	QR-02	QR-03	QR-04	SF-3A-1	SF-3A-2	SF-3A-3	SF-3B-1	SF-3B-2	SF-3B-3	SF-3C-1	SF-3C-2	SF-3C-3
Location	PB-8	PB-8	QE001	QE002	QE003	QE004	QE005	QR-01	QR-02	QR-03	QR-04	SF-3A	SF-3A	SF-3A	SF-3B	SF-3B	SF-3B	SF-3C	SF-3C	SF-3C
Date Sampled	3/5/97	3/5/97	3/27/92	3/27/92	3/27/92	3/27/92	3/27/92	3/27/96	3/27/96	3/27/96	3/27/96	2/24/97	3/17/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97
Sampling Depth [ft bgs]	1	8.5	0	0	0	0	0	--	1.5	0	--	0	3	5.5	0	3	5.5	0	3	5.5
PAHs																				
Acenaphthene	ND	0.0012	--	--	--	--	--	160	290	9.5 J	200	--	--	--	--	--	--	--	--	--
Acenaphthylene	ND	ND	--	--	--	--	--	10.0 J	19.0 J	0.69 J	17.0 J	--	--	--	--	--	--	--	--	--
Anthracene	ND	0.0026	--	--	--	--	--	220	430	13.0	320	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	*0.00012*	*0.0029*	--	--	--	--	--	380	*900*	*25.0*	*590*	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	0.00016	0.0022	--	--	--	--	--	360	630	25.0	550	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	0.00018	0.0033	--	--	--	--	--	470	870	31.0	730	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	0.000080	0.00060	--	--	--	--	--	180	270	23.0	180	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	0.000090	0.0015	--	--	--	--	--	99.0 J	150	10.0 J	150	--	--	--	--	--	--	--	--	--
Chrysene	0.00013	0.0026	--	--	--	--	--	370	710	24.0	520	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	ND	0.00026	--	--	--	--	--	100 J	220	7.1 J	170	--	--	--	--	--	--	--	--	--
Fluoranthene	0.00024	0.0078	--	--	--	--	--	700	1700	45.0	1400	--	--	--	--	--	--	--	--	--
Fluorene	ND	0.0015	--	--	--	--	--	140	280	8.9 J	190	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	0.000070	0.00075	--	--	--	--	--	220	420	16.0	340	--	--	--	--	--	--	--	--	--
Naphthalene	ND	0.00055	--	--	--	--	--	200	350	13.0	180	--	--	--	--	--	--	--	--	--
Phenanthrene	0.000080	0.0087	--	--	--	--	--	640	1600	42.0	840	--	--	--	--	--	--	--	--	--
Pyrene	0.00022	0.0062	--	--	--	--	--	610	1500	39.0	1200	--	--	--	--	--	--	--	--	--
Total PAHs	0.0014	0.0427	--	--	--	--	--	4860	10300	332	7580	--	--	--	--	--	--	--	--	--
Metals																				
Aluminum	--	--	--	--	--	--	--	9460	7440	14900	7760	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	2.4 BJ	3.0 BJ	3.5 BJ	2.8 BJ	--	--	--	--	--	--	--	--	--
Arsenic	--	--	1.3	0.025	0.013	0.021	0.0072	29.6 U	48.2 U	27.4 U	28.4 J	5.2	6.0	10.0	4.7	3.9	1.6	4.5	8.0	0.92
Barium	--	--	--	--	--	--	--	124	250	96.0	104	--	--	--	--	--	--	--	--	--
Beryllium	0.48	0.33	--	--	--	--	--	4.5 J	0.53 BJ	0.54 BJ	1.2 J	--	--	--	--	--	--	--	--	--
Cadmium	ND	ND	--	--	--	--	--	1.3 U	1.7	1.0 B	1.2	--	--	--	--	--	--	--	--	--
Calcium	--	--	--	--	--	--	--	15000	15200	1830	14600	--	--	--	--	--	--	--	--	--
Chromium	--	--	0.048	0.058	0.013	0.0060	0.0040 U	66.7 J	30.2 J	50.6 U	49.6 U	--	--	--	--	--	--	--	--	--
Cobalt	--	--	--	--	--	--	--	13.6	10.8 B	20.5	10.7 B	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	--	203 J	159 J	116 J	173 J	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	27500	26100	30800	23100	--	--	--	--	--	--	--	--	--
Lead	--	--	0.35	2.1	0.12	0.069	0.070	309	303	269	255	--	--	--	--	--	--	--	--	--
Magnesium	--	--	--	--	--	--	--	5230	4240	8340	5440	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	344	241	828	298	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	3.8 U	1.0 U	0.42 U	2.3	--	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	--	37.4	31.0	75.1	29.6	33.2	213	661	44.2	26.0	23.4	48.0	1900	35.6
Potassium	--	--	--	--	--	--	--	1430 J	1030 B	644 B	1380 J	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	--	3.0 J	5.4 J	3.6 U	2.5 J	--	--	--	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--	0.38 BJ	0.53 U	0.57 U	0.49 BJ	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	121 B	336 B	220 B	241 B	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	53.6	43.0	95.3	47.1	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	SF-4A-1	SF-4A-2	SF-4A-3	SF-4B-1	SF-4B-2	SF-4B-3	SF-4C-1	SF-4C-2	SF-4C-3	SF-4D-1	SF-4D-2	SF-4D-3	SF-6A-1	SF-6A-2	SF-6A-3	SF-6B-1	SF-6B-2	SF-6B-3	SF-6C-1	SF-6C-2
Location	SF-4A	SF-4A	SF-4A	SF-4B	SF-4B	SF-4B	SF-4C	SF-4C	SF-4C	SF-4D	SF-4D	SF-4D	SF-6A	SF-6A	SF-6A	SF-6B	SF-6B	SF-6B	SF-6C	SF-6C
Date Sampled	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/21/97	2/21/97	2/21/97	2/21/97	2/21/97	2/21/97	2/21/97	2/21/97
Sampling Depth [ft bgs]	0	3	5.5	0	3	5.5	0	3	5.5	0	3	5.5	0	3	5.5	0	3	5.5	0	3
VOCs																				
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (Methylene Chloride)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m&p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCBs																				
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	SF-4A-1	SF-4A-2	SF-4A-3	SF-4B-1	SF-4B-2	SF-4B-3	SF-4C-1	SF-4C-2	SF-4C-3	SF-4D-1	SF-4D-2	SF-4D-3	SF-6A-1	SF-6A-2	SF-6A-3	SF-6B-1	SF-6B-2	SF-6B-3	SF-6C-1	SF-6C-2
Location	SF-4A	SF-4A	SF-4A	SF-4B	SF-4B	SF-4B	SF-4C	SF-4C	SF-4C	SF-4D	SF-4D	SF-4D	SF-6A	SF-6A	SF-6A	SF-6B	SF-6B	SF-6B	SF-6C	SF-6C
Date Sampled	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/24/97	2/21/97	2/21/97	2/21/97	2/21/97	2/21/97	2/21/97	2/21/97	2/21/97
Sampling Depth [ft bgs]	0	3	5.5	0	3	5.5	0	3	5.5	0	3	5.5	0	3	5.5	0	3	5.5	0	3
PAHs																				
Acenaphthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PAHs	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Metals																				
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Barium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	0.25	0.65	0.21	0.25	0.57	0.56	0.74	0.59	0.92	9.1	15.4	1.6	0.72	0.60	ND	0.86	2.3	0.77	0.54	0.49
Calcium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPL[illegible]TS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	SF-6C-3	SF-6D-1	SF-6D-2	SF-6D-3	SF-8A-1	SF-8A-2	SF-8B-1	SF-8B-2	SF-8C-1	SF-8C-2	SS-01	SS-02	SS-03	SS-04	SS-05	SS-06	TP-13	TP-14	TP-16	TP-5	TP-5-1	TP-6
Location	SF-6C	SF-6D	SF-6D	SF-6D	SF-8A	SF-8A	SF-8B	SF-8B	SF-8C	SF-8C	SS-01	SS-02	SS-03	SS-04	SS-05	SS-06	TP-13	TP-15	TP-17	TP-5	TP-5	TP-6
Date Sampled	2/21/97	2/21/97	2/21/97	2/21/97	3/6/97	3/6/97	3/6/97	3/6/97	3/6/97	3/6/97	3/10/97	3/10/97	3/10/97	3/10/97	3/10/97	3/10/97	6/4/98	6/4/98	6/5/98	6/3/98	6/3/98	6/3/98
Sampling Depth [ft bgs]	5.5	0	3	5.5	8	13	9	14.5	10.5	14.5	0	0	0	0	0	0	--	--	9	8	8	--
VOCs																						
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
Acetone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
Benzene	--	--	--	--	--	--	--	--	--	--	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	--	1.5	51.0	ND	1.5	1.6	0.63
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene Chloride)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.32	3.7	0.49	0.51	0.39	ND
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12.0	290	3.5	17.0	18.0	16.0
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	--	--	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.2	310	2.6	2.5	2.4	0.62
trans-1,2-dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND
m&p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	25.0	87.0	18.0	79.0	75.0	13.0
Total VOCs	--	--	--	--	--	--	--	--	--	--	0	0	0	0	0	--	41	742	24.6	101	97.4	30.3
PCBs																						
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	0.039 U	0.20 U	ND	0.24 U	0.22 U	0.20 U	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	0.039 U	0.20 U	ND	0.24 U	0.22 U	0.20 U	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	0.039 U	0.20 U	ND	0.24 U	0.22 U	0.20 U	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	0.039 U	1.3	3.0	3.2	1.8	1.7	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	0.039 U	0.20 U	ND	0.24 U	0.22 U	0.20 U	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	0.38	0.20 U	ND	0.24 U	0.22 U	0.20 U	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	0.039 U	0.20 U	0.26	0.24 U	0.55	0.20 U	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	--	--	--	--	--	--	--	--	--	--	0.38	1.3	3.26	3.2	2.35	1.7	--	--	--	--	--	--

T.
SOIL SAMPLING RES[illegible]S [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	SF-6C-3	SF-6D-1	SF-6D-2	SF-6D-3	SF-8A-1	SF-8A-2	SF-8B-1	SF-8B-2	SF-8C-1	SF-8C-2	SS-01	SS-02	SS-03	SS-04	SS-05	SS-06	TP-13	TP-14	TP-16	TP-5	TP-5-1	TP-6
Location	SF-6C	SF-6D	SF-6D	SF-6D	SF-8A	SF-8A	SF-8B	SF-8B	SF-8C	SF-8C	SS-01	SS-02	SS-03	SS-04	SS-05	SS-06	TP-13	TP-15	TP-17	TP-5	TP-5	TP-6
Date Sampled	2/21/97	2/21/97	2/21/97	2/21/97	3/6/97	3/6/97	3/6/97	3/6/97	3/6/97	3/6/97	3/10/97	3/10/97	3/10/97	3/10/97	3/10/97	3/10/97	6/4/98	6/4/98	6/5/98	6/3/98	6/3/98	6/3/98
Sampling Depth [ft bgs]	5.5	0	3	5.5	8	13	9	14.5	10.5	14.5	0	0	0	0	0	0	--	--	9	8	8	--
PAHs																						
Acenaphthene	--	--	--	--	0.0063	0.0014	ND	ND	0.0077	0.00019	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	--	--	--	--	ND	ND	ND	ND	0.00062	ND	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	--	--	--	--	0.018	0.0037	ND	ND	0.0096	0.00021	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	0.023	0.0062	0.00011	ND	0.0044	0.00028	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	0.018	0.0050	0.00010	ND	0.0022	0.00022	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	0.022	0.0059	0.00010	ND	0.0028	0.00022	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	0.0065	0.0022	0.000070	ND	0.00063	0.00063	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	0.0088	0.0028	ND	ND	0.0015	0.00011	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	--	--	--	--	0.022	0.0057	0.00010	ND	0.0039	0.00026	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	--	--	--	--	0.0025	0.00077	ND	ND	0.00026	ND	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	--	--	--	--	0.057	0.014	0.00026	ND	0.017	0.00074	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	--	--	--	--	0.0079	0.0017	ND	ND	0.0095	0.00017	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	0.0076	0.0024	0.000070	ND	0.00075	0.00012	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	0.0022	0.00059	ND	ND	0.0081	0.00085	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	--	--	--	--	0.064	0.014	0.00017	ND	0.028	0.00066	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	--	--	--	--	0.044	0.011	0.00018	ND	0.011	0.00078	--	--	--	--	--	--	--	--	--	--	--	--
Total PAHs	--	--	--	--	0.31	0.078	0.0012	0	0.107	0.0054	--	--	--	--	--	--	--	--	--	--	--	--
Metals																						
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	--	--	--	--	--	--	--	--	--	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	--	--	--	--	--
Barium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	0.28	0.56	1.0	0.41	0.32	0.24	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	--	--	--	--	--	--	--	--	--	--	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	--	--	--	--	--	--
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	--	--	--	--	367	387	63.0	58.2	98.7	63.1	0.21	0.10	0.11	0.19	0.59	--	--	--	--	--	--	--
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SOIL SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	TP01-01	TP01-02	TP02-01	TP02-02
Location	TP01-01	TP01-02	TP02-01	TP02-02
Date Sampled	3/25/98	3/25/98	3/25/98	3/25/98
Sampling Depth [ft bgs]	--	--	--	--
VOCs				
1,1,1-Trichloroethane	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--
1,1-Dichloroethane	--	--	--	--
1,1-Dichloroethene	--	--	--	--
1,2-Dichloroethane	--	--	--	--
1,2-Dichloropropane	--	--	--	--
2-Butanone (MEK)	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--
2-Hexanone	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--
Acetone	--	--	--	--
Benzene	--	--	--	--
Bromodichloromethane	--	--	--	--
Bromoform	--	--	--	--
Bromomethane	--	--	--	--
Carbon Disulfide	--	--	--	--
Carbon Tetrachloride	--	--	--	--
Chlorobenzene	--	--	--	--
Chloroethane	--	--	--	--
Chloroform	--	--	--	--
Chloromethane	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--
cis/trans1,2-Dichloroethene	--	--	--	--
Dibromochloromethane	--	--	--	--
Dichloromethane (Methylene Chloride)	--	--	--	--
Ethyl benzene	--	--	--	--
Hexachloroethane	--	--	--	--
Tetrachloroethene	--	--	--	--
Toluene	--	--	--	--
trans-1,2-dichloroethene	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--
Trichloroethene	--	--	--	--
Trichlorofluoromethane	--	--	--	--
Vinyl chloride	--	--	--	--
m&p-Xylene	--	--	--	--
o-Xylene	--	--	--	--
Xylenes (unspecified)	--	--	--	--
Total VOCs	--	--	--	--
PCBs				
Aroclor-1016	--	--	--	--
Aroclor-1221	--	--	--	--
Aroclor-1232	--	--	--	--
Aroclor-1242	--	--	--	--
Aroclor-1248	--	--	--	--
Aroclor-1254	--	--	--	--
Aroclor-1260	--	--	--	--
Aroclor-1268	--	--	--	--
Total PCB	--	--	--	--

T.

SOIL SAMPLING RESULTS [mg/kg]

QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	TP01-01	TP01-02	TP02-01	TP02-02
Location	TP01-01	TP01-02	TP02-01	TP02-02
Date Sampled	3/25/98	3/25/98	3/25/98	3/25/98
Sampling Depth [ft bgs]	--	--	--	--
PAHs				
Acenaphthene	--	--	--	--
Acenaphthylene	--	--	--	--
Anthracene	--	--	--	--
Benzo(a)anthracene	--	--	--	--
Benzo(a)pyrene	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--
Chrysene	--	--	--	--
Dibenzo(a,h)anthracene	--	--	--	--
Fluoranthene	--	--	--	--
Fluorene	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--
Naphthalene	--	--	--	--
Phenanthrene	--	--	--	--
Pyrene	--	--	--	--
Total PAHs	--	--	--	--
Metals				
Aluminum	4090	464	3710	4630
Antimony	ND	ND	3.7 BJ	1.9 BJ
Arsenic	14.7 J	4.8 J	7.6 J	6.5 J
Barium	136 J	10.3 B	18.4 B	24.3 B
Beryllium	0.35 B	0.030 B	0.20 B	0.23 B
Cadmium	0.93 B	1.3 B	0.20 B	0.40 B
Calcium	ND	623 B	ND	ND
Chromium	15.8 J	3.0 J	24.3 J	20.0 J
Cobalt	4.4 B	0.45 B	6.2 B	4.2 B
Copper	ND	ND	ND	ND
Iron	1200	1470	12200	11200
Lead	249 J	76.0 J	95.0 J	109 J
Magnesium	1430 B	331 B	1880 J	3200 J
Manganese	169	15.7	120	209
Mercury	0.84	0.12 B	0.47 J	3.8 J
Nickel	11.1 B	6.5 B	31.1 J	12.0 B
Potassium	623 B	76.2 B	736 B	862 B
Selenium	1.6	ND	2.4	2.6
Silver	0.97 B	0.30 B	0.49 B	0.60 B
Sodium	282 B	210 B	470 B	510 B
Thallium	ND	ND	ND	ND
Vanadium	18.7	16.2	15.7 B	15.8 B
Zinc	168 J	140 J	107 J	98.6 J

-- indicates the constituent was not analyzed in the sample

ND indicates the constituent was reported as non detect in the sample without information about the reporting limit being provided

U indicates the constituent was reported as non detect in the sample; the value presented represents the reporting limit

J indicates the concentration was estimated in the sample

B indicates the constituent was present below the reporting limit

SEDIMENT SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	ER-L	ER-M	98312-01	98312-02	98312-03	98312-04	98312-05	98312-06	98312-07	98312-08	98312-09	98317-01
Location	--	--	SED-1A	SED-1A	SED-1A	SED-1B	SED-1B	SED-2A	SED-2A	SED-2B	SED-2B	SED-3A
Date Sampled	--	--	11/8/98	11/8/98	11/8/98	11/8/98	11/8/98	11/8/98	11/8/98	11/8/98	11/8/98	11/13/98
Sampling Depth	--	--	0	2	4	0	3	0	3	0	3.4	0
VOCs												
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--
2,2'-oxybis(1-Chloropropane)	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (methylene chloride)	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--

TA.

SEDIMENT SAMPLING RESULTS [mg/kg]

QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	ER-L	ER-M	98312-01	98312-02	98312-03	98312-04	98312-05	98312-06	98312-07	98312-08	98312-09	98317-01
Location	--	--	SED-1A	SED-1A	SED-1A	SED-1B	SED-1B	SED-2A	SED-2A	SED-2B	SED-2B	SED-3A
Date Sampled	--	--	11/8/98	11/8/98	11/8/98	11/8/98	11/8/98	11/8/98	11/8/98	11/8/98	11/8/98	11/13/98
Sampling Depth	--	--	0	2	4	0	3	0	3	0	3.4	0
PAHs												
Acenaphthene	16	500	73.0	660	1200	6.3	1500	10.0	95.0	1.1 J	130	12.0
Acenaphthylene	44	640	14.0 J	61.0 J	120 J	4.4	150 J	12.0	14.0 J	3.0	3.3 J	5.9
Anthracene	85.3	1100	35.0	290	660	4.3	680	9.1	55.0	2.1	9.8	7.4
Benzo(a)anthracene	261	1600	65.0	290	500	15.0	640	41.0	63.0	8.6	15.0	22.0
Benzo(a)pyrene	430	1600	51.0	180	310	14.0	430	40.0	44.0	9.8	11.0	20.0
Benzo(b)fluoranthene	--	--	60.0	220	360	16.0	500	47.0	54.0	11.0	14.0	24.0
Benzo(g,h,i)perylene	--	--	24.0	86.0 J	140 J	6.1	210 J	20.0	20.0 J	4.2	4.0	9.0
Benzo(k)fluoranthene	--	--	24.0	92.0	150	6.7	230	19.0	23.0	4.9	5.6	9.4
Chrysene	384	2800	50.0	230	440	13.0	580	35.0	60.0	8.2	14.0	18.0
dibenzo(a,h)anthracene	63.4	260	6.7	28.0	48.0	1.8	65.0	5.4	5.9	1.3	1.3	2.6
Fluoranthene	600	5100	170	970	1700	32.0	2200	110	180	22.0	45.0	54.0
Fluorene	19	540	49.0	590	1100	3.2	1400	2.4 J	83.0	0.53 J	120	5.0
Indeno(1,2,3-cd)pyrene	--	--	28.0	97.0	160	7.3	230	23.0	22.0	5.0	4.9	10.0
Naphthalene	160	2100	190	3400	8000	9.9	7400	1.8 J	570	0.35 J	48.0	1.3 J
Phenanthrene	240	1500	160	1600	2900	14.0	3700	23.0	240	4.4	420	29.0
Pyrene	665	2600	140	710	1300	31.0	1600	88.0	150	20.0	36.0	47.0
Total PAHs	4022	44792	1140	9500	19100	185	21500	487	1680	106	882	277
PCBs												
Aroclor-1016	--	--	0.15 U	0.13 U	0.16 U	0.14 U	0.17 U	0.14 U	0.14 U	0.15 U	0.14 U	0.16 U
Aroclor-1221	--	--	0.15 U	0.13 U	0.16 U	0.14 U	0.17 U	0.14 U	0.14 U	0.15 U	0.14 U	0.16 U
Aroclor-1232	--	--	0.15 U	0.13 U	0.16 U	0.14 U	0.17 U	0.14 U	0.14 U	0.15 U	0.14 U	0.16 U
Aroclor-1242	--	--	0.15 U	0.13 U	0.16 U	0.14 U	0.17 U	0.14 U	0.14 U	0.15 U	0.14 U	0.16 U
Aroclor-1248	--	--	0.60	0.68	3.2	0.34	3.8	0.58	1.4	0.46	0.88	0.72
Aroclor-1254	--	--	0.25	0.13 U	0.16 U	0.14 U	0.17 U	0.14 U	0.14 U	0.15 U	0.14 U	0.16 U
Aroclor-1260	--	--	0.15 U	0.13 U	0.16 U	0.14 U	0.17 U	0.14 U	0.32	0.15 U	0.23	0.19
Aroclor-1268	--	--	0.15 U	0.13 U	0.16 U	0.14 U	0.17 U	0.14 U	0.14 U	0.15 U	0.14 U	0.16 U
Total PCBs	--	--	0.85	0.68	3.2	0.34	3.8	0.58	1.7	0.46	1.1	0.91
Metals												
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	2	25	--	--	--	--	--	--	--	--	--	--
Arsenic	8.2	70	18.0	29.4	86.8	15.2	31.3	19.1	33.8	16.6	22.2	16.9
Barium	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	1.2	9.6	--	--	--	--	--	--	--	--	--	--
Calcium	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	81	370	88.8	120	270	73.3	235	82.4	148	74.9	147	77.8
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--
Copper	34	270	--	--	--	--	--	--	--	--	--	--

T.

SEDIMENT SAMPLING RESULTS [mg/kg]

QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	ER-L	ER-M	98312-01	98312-02	98312-03	98312-04	98312-05	98312-06	98312-07	98312-08	98312-09	98317-01
Location	--	--	SED-1A	SED-1A	SED-1A	SED-1B	SED-1B	SED-2A	SED-2A	SED-2B	SED-2B	SED-3A
Date Sampled	--	--	11/8/98	11/8/98	11/8/98	11/8/98	11/8/98	11/8/98	11/8/98	11/8/98	11/8/98	11/13/98
Sampling Depth	--	--	0	2	4	0	3	0	3	0	3.4	0
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Lead	46.7	218	115	189	267	98.5	235	114	224	107	220	109
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	0.15	0.71	--	--	--	--	--	--	--	--	--	--
Nickel	20.9	51.6	--	--	--	--	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	--	--	--	--	--	--
Silver	1	3.7	--	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	150	410	--	--	--	--	--	--	--	--	--	--
Grain Size												
Percent Coarse Gravel	--	--	--	--	--	--	--	--	--	--	--	--
Percent Coarse Sand	--	--	--	--	--	--	--	--	--	--	--	--
Percent Fine Gravel	--	--	--	--	--	--	--	--	--	--	--	--
Percent Fine Sand	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_001mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_002mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_003mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_005mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_006mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_009mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_012mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_016mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_021mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_029mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Fines	--	--	--	--	--	--	--	--	--	--	--	--
Percent Medium Sand	--	--	--	--	--	--	--	--	--	--	--	--
Percent Moisture	--	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon	--	--	--	--	--	--	--	--	--	--	--	--
pH	--	--	--	--	--	--	--	--	--	--	--	--

1.

SEDIMENT SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	98317-02	98317-03	98317-04	98317-05	98317-06	98317-07	98317-08	98323-01	98323-02	98323-05	98323-06	98323-07
Location	SED-3A	SED-3B	SED-3B	SED-4A	SED-4A	SED-4B	SED-4B	HAB-01	HAB-01	SED-1.5C	SED-1.5C	SED-3.5C
Date Sampled	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/19/98	11/19/98	11/19/98	11/19/98	11/19/98
Sampling Depth	2.7	0	3.9	0	4.9	0	4.6	8.5	11.5	4	0	3.8
VOCs												
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	2.9 U	--	1.5 U
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	0.58 U	--	0.30 U
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	1.7 U	--	0.90 U
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	2.9 U	--	1.5 U
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	1.2 U	--	0.60 U
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	1.2 U	--	0.60 U
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	0.58 U	--	0.30 U
2,2'-oxybis(1-Chloropropane)	--	--	--	--	--	--	--	--	--	37.0 U	--	3.7 U
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	2.9 U	--	1.5 U
2-Hexanone	--	--	--	--	--	--	--	--	--	2.9 U	--	1.5 U
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	2.9 U	--	1.5 U
Acetone	--	--	--	--	--	--	--	--	--	2.9 U	--	1.5 U
Benzene	--	--	--	--	--	--	--	--	--	5.1	--	0.30 U
Bromodichloromethane	--	--	--	--	--	--	--	--	--	0.58 U	--	0.30 U
Bromoform	--	--	--	--	--	--	--	--	--	2.3 U	--	1.2 U
Bromomethane	--	--	--	--	--	--	--	--	--	2.9 U	--	1.5 U
Carbon Disulfide	--	--	--	--	--	--	--	--	--	2.9 U	--	0.22 J
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	1.2 U	--	0.60 U
Chloroethane	--	--	--	--	--	--	--	--	--	2.9 U	--	1.5 U
Chloroform	--	--	--	--	--	--	--	--	--	2.9 U	--	1.5 U
Chloromethane	--	--	--	--	--	--	--	--	--	2.9 U	--	1.5 U
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	2.9 U	--	1.5 U
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	2.9 U	--	1.5 U
Dibromochloromethane	--	--	--	--	--	--	--	--	--	2.9 U	--	1.5 U
Dichloromethane (methylene chloride)	--	--	--	--	--	--	--	--	--	1.7 U	--	0.90 U
Ethyl benzene	--	--	--	--	--	--	--	--	--	7.1	--	1.2 U
Hexachloroethane	--	--	--	--	--	--	--	--	--	3.7 U	--	0.37 U
Tetrachloroethene	--	--	--	--	--	--	--	--	--	0.58 U	--	0.30 U
Toluene	--	--	--	--	--	--	--	--	--	2.9 U	--	1.5 U
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	2.9 U	--	1.5 U
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	2.9 U	--	1.5 U
Trichloroethene	--	--	--	--	--	--	--	--	--	0.58 U	--	0.30 U
Vinyl Chloride	--	--	--	--	--	--	--	--	--	2.9 U	--	1.5 U
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	16.0	--	0.40 J
Total VOCs	--	--	--	--	--	--	--	--	--	28.2	--	0.82

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SEDIMENT SAMPLING RESULTS [mg/kg]

QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	98317-02	98317-03	98317-04	98317-05	98317-06	98317-07	98317-08	98323-01	98323-02	98323-05	98323-06	98323-07
Location	SED-3A	SED-3B	SED-3B	SED-4A	SED-4A	SED-4B	SED-4B	HAB-01	HAB-01	SED-1.5C	SED-1.5C	SED-3.5C
Date Sampled	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/19/98	11/19/98	11/19/98	11/19/98	11/19/98
Sampling Depth	2.7	0	3.9	0	4.9	0	4.6	8.5	11.5	4	0	3.8
PAHs												
Acenaphthene	39.0	0.87 J	53.0	13.0	890	0.55 J	8.6	46.0	200	35.0 J	0.44 J	1.6 J
Acenaphthylene	9.2	2.2	3.8 J	19.0	93.0 J	1.7	2.8 J	5.8 J	27.0 J	2.8 J	1.5	0.75 J
Anthracene	40.0	1.5 J	16.0	15.0	540	1.2	8.2	26.0 J	9.7 J	10.0 J	1.3 J	1.7 J
Benzo(a)anthracene	49.0	5.7	17.0	69.0	470	5.3	12.0	26.0	120	12.0	4.8	3.3
Benzo(a)pyrene	34.0	7.3	13.0	61.0	310	6.3	9.1	18.0	71.0	8.5	5.0	2.4
Benzo(b)fluoranthene	41.0	8.4	15.0	73.0	340	7.4	11.0	21.0	90.0	10.0	6.0	3.3
Benzo(g,h,i)perylene	14.0	3.6	6.0 J	23.0	140 J	2.8	4.0	10.0 J	34.0 J	4.6 J	2.6	1.6 J
Benzo(k)fluoranthene	19.0	3.8	6.4	30.0	160	3.0	4.4	8.8	36.0	3.8	2.4	1.6
Chrysene	46.0	6.1	16.0	62.0	430	5.8	12.0	18.0 J	81.0	7.6 J	3.5	3.1 J
dibenzo(a,h)anthracene	3.9	0.97	1.6	7.5	40.0	0.83	1.2	2.8 J	11.0	1.1 J	0.62	0.50
Fluoranthene	120	13.0	54.0	150	1500	9.8	34.0	83.0	330	40.0	12.0	11.0
Fluorene	43.0	0.45 J	42.0	3.6 J	960	0.34 J	7.7	44.0	160	28.0 J	0.32 J	1.5 J
Indeno(1,2,3-cd)pyrene	16.0	4.0	6.8	29.0	150	3.3	4.6	9.8	42.0	4.9	2.7	1.6
Naphthalene	74.0	0.39 J	140	1.5 J	2900	0.21 J	7.4	270	1300	390	0.20 J	2.5 J
Phenanthrene	140	3.1	84.0	31.0	2500	2.6	35.0	130	500	64.0	2.9	5.8
Pyrene	110	15.0	44.0	140	1200	12.0	30.0	56.0	240	28.0 J	11.0	9.3
Total PAHs	798	76.4	519	728	12600	63.1	192	775	3250	650	57.3	51.6
PCBs												
Aroclor-1016	0.14 U	0.15 U	0.15 U	0.16 U	0.16 U	0.15 U	0.15 U	0.15 U	0.16 U	0.15 U	0.14 U	0.15 U
Aroclor-1221	0.14 U	0.15 U	0.15 U	0.16 U	0.16 U	0.15 U	0.15 U	0.15 U	0.16 U	0.15 U	0.14 U	0.15 U
Aroclor-1232	0.14 U	0.15 U	0.15 U	0.16 U	0.16 U	0.15 U	0.15 U	0.15 U	0.16 U	0.15 U	0.14 U	0.15 U
Aroclor-1242	0.14 U	0.15 U	0.15 U	0.16 U	0.16 U	0.15 U	0.15 U	0.15 U	0.16 U	0.15 U	0.14 U	0.15 U
Aroclor-1248	0.62	0.45	1.3	0.42	2.1	0.44	1.6	1.4	2.2	2.8	0.53	1.2
Aroclor-1254	0.14 U	0.15 U	0.15 U	0.16 U	0.16 U	0.15 U	0.15 U	0.15 U	0.16 U	0.15 U	0.14 U	0.15 U
Aroclor-1260	0.54	0.15 U	0.36	0.16 U	0.27	0.15 U	0.15 U	0.27	0.30	0.32	0.14 U	0.26
Aroclor-1268	0.14 U	0.15 U	0.15 U	0.16 U	0.16 U	0.15 U	0.15 U	0.15 U	0.16 U	0.15 U	0.14 U	0.15 U
Total PCBs	1.2	0.45	1.7	0.42	2.4	0.44	1.6	1.7	2.5	3.1	0.53	1.5
Metals												
Aluminum	--	--	--	--	--	--	--	--	--	16900	--	15900
Antimony	--	--	--	--	--	--	--	--	--	1.9 U	--	2.0 U
Arsenic	38.4	15.5	18.7	18.4	17.4	14.6	24.9	48.5	40.6	19.0	13.6	20.0
Barium	--	--	--	--	--	--	--	--	--	89.6	--	101
Beryllium	--	--	--	--	--	--	--	--	--	0.93	--	0.90
Cadmium	--	--	--	--	--	--	--	--	--	3.8	--	4.7
Calcium	--	--	--	--	--	--	--	--	--	5400	--	4300
Chromium	155	75.3	152	83.7	167	76.6	187	148	158	168	69.5	150
Cobalt	--	--	--	--	--	--	--	--	--	13.5 B	--	12.6 B
Copper	--	--	--	--	--	--	--	--	--	188	--	193

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SEDIMENT SAMPLING RESULTS [mg/kg]

QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	98317-02	98317-03	98317-04	98317-05	98317-06	98317-07	98317-08	98323-01	98323-02	98323-05	98323-06	98323-07
Location	SED-3A	SED-3B	SED-3B	SED-4A	SED-4A	SED-4B	SED-4B	HAB-01	HAB-01	SED-1.5C	SED-1.5C	SED-3.5C
Date Sampled	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/19/98	11/19/98	11/19/98	11/19/98	11/19/98
Sampling Depth	2.7	0	3.9	0	4.9	0	4.6	8.5	11.5	4	0	3.8
Iron	--	--	--	--	--	--	--	--	--	37200	--	35900
Lead	362	104	223	130	221	113	227	220	212	218	97.9	202
Magnesium	--	--	--	--	--	--	--	--	--	8740	--	8000
Manganese	--	--	--	--	--	--	--	--	--	548	--	553
Mercury	--	--	--	--	--	--	--	--	--	1.9	--	2.5
Nickel	--	--	--	--	--	--	--	--	--	46.9	--	43.7
Potassium	--	--	--	--	--	--	--	--	--	2720	--	2600
Selenium	--	--	--	--	--	--	--	--	--	1.9 U	--	1.9 U
Silver	--	--	--	--	--	--	--	--	--	6.2	--	6.3
Sodium	--	--	--	--	--	--	--	--	--	6700	--	6550
Thallium	--	--	--	--	--	--	--	--	--	2.0 U	--	2.0 U
Vanadium	--	--	--	--	--	--	--	--	--	40.3	--	38.3
Zinc	--	--	--	--	--	--	--	--	--	351	--	318
Grain Size												
Percent Coarse Gravel	--	--	--	--	--	--	--	--	--	--	--	--
Percent Coarse Sand	--	--	--	--	--	--	--	--	--	--	--	--
Percent Fine Gravel	--	--	--	--	--	--	--	--	--	--	--	--
Percent Fine Sand	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_001mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_002mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_003mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_005mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_006mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_009mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_012mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_016mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_021mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_029mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Fines	--	--	--	--	--	--	--	--	--	--	--	--
Percent Medium Sand	--	--	--	--	--	--	--	--	--	--	--	--
Percent Moisture	--	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon	--	--	--	--	--	--	--	--	--	--	--	--
pH	--	--	--	--	--	--	--	--	--	--	--	--

1.

SEDIMENT SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	98323-08	98336-01	98336-02	99166-01	99166-02	99167-01	99168-01	99168-02	99168-03	99168-04	99168-05	99168-06
Location	SED-3.5C	CPT-8A	CPT-9A	SED-12	SED-9	VC-02	VC-06	VC-05	VC-06	SED-7	SED-7	SED-8
Date Sampled	11/19/98	12/2/98	12/2/98	6/15/99	6/15/99	6/16/99	6/17/99	6/17/99	6/17/99	6/17/99	6/17/99	6/17/99
Sampling Depth	0	25	24	0	0	18	17	20	4	0	0	0
VOCs												
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--
2,2'-oxybis(1-Chloropropane)	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (methylene chloride)	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--

TA
SEDIMENT SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	98323-08	98336-01	98336-02	99166-01	99166-02	99167-01	99168-01	99168-02	99168-03	99168-04	99168-05	99168-06
Location	SED-3.5C	CPT-8A	CPT-9A	SED-12	SED-9	VC-02	VC-06	VC-05	VC-06	SED-7	SED-7	SED-8
Date Sampled	11/19/98	12/2/98	12/2/98	6/15/99	6/15/99	6/16/99	6/17/99	6/17/99	6/17/99	6/17/99	6/17/99	6/17/99
Sampling Depth	0	25	24	0	0	18	17	20	4	0	0	0
PAHs												
Acenaphthene	0.37 J	68.0	27.0	0.092 J	0.043 J	1000	410	300	3.4	0.11 J	0.091 J	0.16 J
Acenaphthylene	1.1 J	13.0 J	1.6 J	0.28 J	0.20 J	56.0 J	10.0 J	25.0 J	1.3 J	0.38 J	0.35 J	0.59 J
Anthracene	0.90 J	68.0	18.0	0.31 J	0.18 J	4600	300	220	3.0	0.39 J	0.42 J	0.55 J
Benzo(a)anthracene	3.4	63.0	10.0	0.53	0.36	280	63.0	95.0	4.2	0.60	0.61	1.2
Benzo(a)pyrene	4.1	45.0	6.3	0.64	0.46	170	30.0	66.0	3.3	0.77	0.72	1.4
Benzo(b)fluoranthene	5.2	53.0	7.5	0.78	0.54	200	38.0	67.0	4.0	0.95	0.91	1.7
Benzo(g,h,i)perylene	2.4	16.0	2.8 J	0.19 J	0.30 J	68.0 J	12.0 J	28.0 J	1.7	0.21 J	0.22 J	0.82
Benzo(k)fluoranthene	2.2	25.0	3.5	0.36	0.24	99.0	17.0	30.0	2.1	0.48	0.46	0.81
Chrysene	3.2	62.0	10.0 J	0.62 J	0.46 J	300 J	60.0 J	100 J	3.7	0.79 J	0.73 J	1.2
dibenzo(a,h)anthracene	0.67	5.8	1.2 J	--	--	--	--	--	--	--	--	--
Fluoranthene	6.3	150	35.0	0.80	0.61 J	1000	300	320	13.0	1.0	1.0	2.2
Fluorene	0.26 J	77.0	25.0	0.099 J	0.059 J	1300	360	260	2.4	0.12 J	0.11 J	0.16 J
Indeno(1,2,3-cd)pyrene	2.6	19.0	3.0	0.23	0.27	74.0	13.0	28.0	1.8	0.26	0.24	0.77
Naphthalene	0.24 J	280	170	0.16 J	0.061 J	3400	990	2000	2.8	0.63 J	0.15 J	0.21 J
Phenanthrene	1.8	200	64.0	0.43 J	0.28 J	2500	680	660	11.0	0.53 J	0.54 J	0.76 J
Pyrene	8.2	130	29.0	0.95	0.64 J	760	220	300	8.7	1.2	1.1	2.1
Total PAHs	42.9	1270	414	6.5	4.7	15800	3500	4500	66.4	8.4	7.7	14.6
PCBs												
Aroclor-1016	0.15 U	0.14 U	0.13 U	0.15 U	0.14 U	--	--	--	--	0.17 U	0.17 U	0.15 U
Aroclor-1221	0.15 U	0.14 U	0.13 U	0.15 U	0.14 U	--	--	--	--	0.17 U	0.17 U	0.15 U
Aroclor-1232	0.15 U	0.14 U	0.13 U	0.15 U	0.14 U	--	--	--	--	0.17 U	0.17 U	0.15 U
Aroclor-1242	0.15 U	0.14 U	0.13 U	0.45	0.46	--	--	--	--	0.58	0.57	0.51
Aroclor-1248	0.65	1.4	0.13 U	0.15 U	0.14 U	--	--	--	--	0.17 U	0.17 U	0.15 U
Aroclor-1254	0.15 U	0.14 U	0.13 U	0.15 U	0.20	--	--	--	--	0.24	0.25	0.22
Aroclor-1260	0.15 U	0.42	0.18	0.15 U	0.14 U	--	--	--	--	0.17 U	0.17 U	0.15 U
Aroclor-1268	0.15 U	0.14 U	0.13 U	0.15 U	0.14 U	--	--	--	--	0.17 U	0.17 U	0.15 U
Total PCBs	0.65	1.8	0.18	0.45	0.66	--	--	--	--	0.82	0.82	0.73
Metals												
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	15.5	40.4	100	9.6	7.9	--	--	--	--	9.0	13.9	11.0
Barium	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	75.7	270	152	61.9	56.6	--	--	--	--	43.2	51.5	68.0
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	--	--	--	--	--	--

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SEDIMENT SAMPLING RESULTS [mg/kg]

QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	98323-08	98336-01	98336-02	99166-01	99166-02	99167-01	99168-01	99168-02	99168-03	99168-04	99168-05	99168-06
Location	SED-3.5C	CPT-8A	CPT-9A	SED-12	SED-9	VC-02	VC-06	VC-05	VC-06	SED-7	SED-7	SED-8
Date Sampled	11/19/98	12/2/98	12/2/98	6/15/99	6/15/99	6/16/99	6/17/99	6/17/99	6/17/99	6/17/99	6/17/99	6/17/99
Sampling Depth	0	25	24	0	0	18	17	20	4	0	0	0
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Lead	111	292	323	81.3	73.2	--	--	--	--	70.0	67.2	93.4
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--	--	--
Grain Size												
Percent Coarse Gravel	--	--	--	ND	ND	--	--	--	--	ND	--	ND
Percent Coarse Sand	--	--	--	0.10	0.020	--	--	--	--	0.040	--	0.040
Percent Fine Gravel	--	--	--	ND	ND	--	--	--	--	ND	--	0.0100
Percent Fine Sand	--	--	--	0.21	0.48	--	--	--	--	0.59	--	0.10
Percent Finer (0_001mm)	--	--	--	3.8	5.8	--	--	--	--	5.8	--	6.4
Percent Finer (0_002mm)	--	--	--	6.3	7.9	--	--	--	--	7.0	--	8.4
Percent Finer (0_003mm)	--	--	--	8.8	10.1	--	--	--	--	8.9	--	10.3
Percent Finer (0_005mm)	--	--	--	11.4	13.0	--	--	--	--	10.2	--	11.6
Percent Finer (0_006mm)	--	--	--	16.4	17.3	--	--	--	--	14.1	--	18.0
Percent Finer (0_009mm)	--	--	--	23.4	25.2	--	--	--	--	18.5	--	23.1
Percent Finer (0_012mm)	--	--	--	29.0	31.2	--	--	--	--	25.5	--	32.1
Percent Finer (0_016mm)	--	--	--	34.1	36.0	--	--	--	--	33.2	--	38.5
Percent Finer (0_021mm)	--	--	--	40.4	46.1	--	--	--	--	41.5	--	47.5
Percent Finer (0_029mm)	--	--	--	46.7	53.3	--	--	--	--	47.9	--	51.4
Percent Fines	--	--	--	99.5	99.5	--	--	--	--	99.3	--	99.7
Percent Medium Sand	--	--	--	0.15	ND	--	--	--	--	0.080	--	0.15
Percent Moisture	--	--	--	110	115	--	--	--	--	147	--	147
Total Organic Carbon	--	--	--	27900	29200	--	--	--	--	28400	--	33500
pH	--	--	--	8.3	8.1	--	--	--	--	7.5	--	7.8

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SEDIMENT SAMPLING RESULTS [mg/kg]

QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	99168-07	99168-08	99168-09	99168-10	99168-11	99169-03	99169-04	99169-05	99169-06	99169-07	99169-08	99169-09
Location	SED-10	SED-11	SED-13	SED-5	SED-6	SC-01	SC-01	SC-02	SC-02	SC-03	SC-03	SC-04
Date Sampled	6/17/99	6/17/99	6/17/99	6/17/99	6/17/99	6/18/99	6/18/99	6/18/99	6/18/99	6/18/99	6/18/99	6/18/99
Sampling Depth	0	0	0	0	0	0	4	0	3	0	4	0
VOCs												
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--
2,2'-oxybis(1-Chloropropane)	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (methylene chloride)	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--

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SEDIMENT SAMPLING RESULTS [mg/kg]

QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	99168-07	99168-08	99168-09	99168-10	99168-11	99169-03	99169-04	99169-05	99169-06	99169-07	99169-08	99169-09
Location	SED-10	SED-11	SED-13	SED-5	SED-6	SC-01	SC-01	SC-02	SC-02	SC-03	SC-03	SC-04
Date Sampled	6/17/99	6/17/99	6/17/99	6/17/99	6/17/99	6/18/99	6/18/99	6/18/99	6/18/99	6/18/99	6/18/99	6/18/99
Sampling Depth	0	0	0	0	0	0	4	0	3	0	4	0
PAHs												
Acenaphthene	0.12 J	0.099 J	0.059 J	0.21 J	0.075 J	3.0	1.7	0.16 J	70.0	0.39 J	0.49 J	32.0
Acenaphthylene	0.35 J	0.24 J	0.22 J	0.38 J	0.24 J	1.0	1.6	0.36 J	3.4 J	0.38 J	0.37 J	3.9 J
Anthracene	0.42 J	0.31 J	0.24 J	1.2	0.30 J	4.0	2.9	0.52 J	140	0.77	0.90 J	44.0
Benzo(a)anthracene	0.72	0.51	0.40	0.86	0.49	3.5	4.7	1.0	210	2.1	2.7	18.0
Benzo(a)pyrene	0.88	0.64	0.53	1.0	0.61	2.8	4.6	1.3	190	2.5	3.0	13.0
Benzo(b)fluoranthene	1.0	0.68	0.60	1.3	0.75	3.7	5.3	1.7	220	3.6	4.3	20.0
Benzo(g,h,i)perylene	0.49 J	0.37 J	0.29 J	0.52 J	0.28 J	0.93	2.3	0.49 J	110	0.91	1.0 J	4.0 J
Benzo(k)fluoranthene	0.45	0.28	0.22	0.63	0.31	1.7	2.4	0.90	96.0	1.6	1.8	7.2
Chrysene	0.92	0.64 J	0.47 J	0.95	0.67 J	3.3	4.8	1.0	220	2.7	3.2	18.0
dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	1.4	0.90	0.60 J	1.5	0.85	13.0	9.7	1.9	520	0.017 J	5.3	70.0
Fluorene	0.14 J	0.12 J	0.077 J	0.31 J	0.084 J	1.7	1.4	0.16 J	73.0	0.35 J	0.45 J	36.0
Indeno(1,2,3-cd)pyrene	0.50	0.35	0.29	0.56	0.29	1.0	2.4	0.53	110	1.1	1.1	5.1
Naphthalene	0.16 J	0.19 J	0.082 J	0.53 J	0.11 J	1.2	1.4	0.17 J	31.0	0.26 J	0.34 J	24.0
Phenanthrene	0.68 J	0.69 J	0.33 J	1.0	0.46 J	3.9	6.3	1.0	560	2.2	3.1	88.0
Pyrene	1.4	0.84	0.70	1.5	0.83	8.6	7.7	1.8	450	5.2	5.1	54.0
Total PAHs	9.6	6.9	5.1	12.4	6.3	53.3	59.2	13.0	3000	24.1	33.2	437
PCBs												
Aroclor-1016	0.16 U	0.15 U	0.14 U	0.15 U	0.16 U	0.18 U	0.13 U	0.14 U	0.12 U	0.15 U	0.14 U	0.15 U
Aroclor-1221	0.16 U	0.15 U	0.14 U	0.15 U	0.16 U	0.18 U	0.13 U	0.14 U	0.12 U	0.15 U	0.14 U	0.15 U
Aroclor-1232	0.16 U	0.15 U	0.14 U	0.15 U	0.16 U	0.18 U	0.13 U	0.14 U	0.12 U	0.15 U	0.14 U	0.15 U
Aroclor-1242	0.64	0.49	0.50	0.56	0.48	0.75	0.13 U	0.72	0.20	2.2	0.72	0.65
Aroclor-1248	0.16 U	0.15 U	0.14 U	0.15 U	0.16 U	0.18 U	0.13 U	0.14 U	0.12 U	0.15 U	0.14 U	0.15 U
Aroclor-1254	0.28	0.22	0.23	0.26	0.21	0.51	0.13 U	0.42	0.12 U	1.0	0.43	0.63
Aroclor-1260	0.16 U	0.15 U	0.14 U	0.15 U	0.16 U	0.27	0.13 U	0.19	0.12 U	0.25	0.24	0.30
Aroclor-1268	0.16 U	0.15 U	0.14 U	0.15 U	0.16 U	0.18 U	0.13 U	0.14 U	0.12 U	0.15 U	0.14 U	0.15 U
Total PCBs	0.92	0.71	0.73	0.82	0.69	1.5	0.0	1.3	0.20	3.5	1.4	1.6
Metals												
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	11.5	9.4	6.7	25.3	11.4	984	801	46.2	673	122	57.1	2150
Barium	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	69.3	63.4	58.0	64.2	47.4	99.2	89.8	84.7	61.1	160	94.8	98.0
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	--	--	--	--	--	--

SEDIMENT SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	99168-07	99168-08	99168-09	99168-10	99168-11	99169-03	99169-04	99169-05	99169-06	99169-07	99169-08	99169-09
Location	SED-10	SED-11	SED-13	SED-5	SED-6	SC-01	SC-01	SC-02	SC-02	SC-03	SC-03	SC-04
Date Sampled	6/17/99	6/17/99	6/17/99	6/17/99	6/17/99	6/18/99	6/18/99	6/18/99	6/18/99	6/18/99	6/18/99	6/18/99
Sampling Depth	0	0	0	0	0	0	4	0	3	0	4	0
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Lead	92.4	81.1	73.8	102	62.9	1540	780	115	586	202	128	1520
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--	--	--
Grain Size												
Percent Coarse Gravel	ND	ND	ND	ND	ND	--	--	ND	--	--	--	--
Percent Coarse Sand	0.030	0.060	0.080	0.060	0.020	--	--	0.020	--	--	--	--
Percent Fine Gravel	0.12	0.080	0.030	ND	ND	--	--	ND	--	--	--	--
Percent Fine Sand	0.13	2.7	3.4	0.23	1.5	--	--	0.090	--	--	--	--
Percent Finer (0_001mm)	5.6	5.3	4.1	5.1	4.0	--	--	5.0	--	--	--	--
Percent Finer (0_002mm)	9.7	7.3	6.8	8.2	6.0	--	--	7.5	--	--	--	--
Percent Finer (0_003mm)	11.1	9.9	8.2	10.1	8.0	--	--	8.8	--	--	--	--
Percent Finer (0_005mm)	13.2	11.2	9.5	12.7	9.9	--	--	10.6	--	--	--	--
Percent Finer (0_006mm)	19.5	17.2	12.3	17.7	14.6	--	--	16.2	--	--	--	--
Percent Finer (0_009mm)	25.7	23.1	19.8	24.7	20.6	--	--	24.4	--	--	--	--
Percent Finer (0_012mm)	34.8	30.4	27.2	31.6	26.5	--	--	33.7	--	--	--	--
Percent Finer (0_016mm)	44.5	35.7	31.3	41.8	31.9	--	--	42.5	--	--	--	--
Percent Finer (0_021mm)	50.0	43.6	38.1	49.4	38.5	--	--	51.2	--	--	--	--
Percent Finer (0_029mm)	58.4	48.8	42.2	58.2	45.1	--	--	60.0	--	--	--	--
Percent Fines	99.7	97.1	96.4	99.5	98.5	--	--	99.9	--	--	--	--
Percent Medium Sand	0.040	0.080	0.12	0.18	0.070	--	--	ND	--	--	--	--
Percent Moisture	124	115	96.3	105	110	--	--	109	--	--	--	--
Total Organic Carbon	34200	25500	25900	33300	21600	--	--	33400	--	--	--	--
pH	7.9	7.8	7.8	7.8	7.6	--	--	7.6	--	--	--	--

SEDIMENT SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	99169-10	99169-11	99169-12	99169-13	99169-14	99169-15	99170-01	99170-02	99170-03	99170-04	99170-05	99170-06
Location	SC-04	SC-05	SC-05	SC-05	SC-06	SC-06	SC-07	SC-07	SC-08	SC-08	SC-09	SC-09
Date Sampled	6/18/99	6/18/99	6/18/99	6/18/99	6/18/99	6/18/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99
Sampling Depth	4	0	4	4	0	4	0	4	0	2	0	4
VOCs												
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--
2,2'-oxybis(1-Chloropropane)	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (methylene chloride)	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--

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SEDIMENT SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	99169-10	99169-11	99169-12	99169-13	99169-14	99169-15	99170-01	99170-02	99170-03	99170-04	99170-05	99170-06
Location	SC-04	SC-05	SC-05	SC-05	SC-06	SC-06	SC-07	SC-07	SC-08	SC-08	SC-09	SC-09
Date Sampled	6/18/99	6/18/99	6/18/99	6/18/99	6/18/99	6/18/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99
Sampling Depth	4	0	4	4	0	4	0	4	0	2	0	4
PAHs												
Acenaphthene	1200	1.9	3.6	3.7	0.18 J	0.18 J	0.39 J	15.0	0.076 J	0.11 J	0.10 J	14.0
Acenaphthylene	76.0 J	0.87 J	0.88 J	2.2	0.38 J	0.36 J	0.36 J	3.3 J	0.29 J	0.34 J	0.43 J	2.8 J
Anthracene	3600	4.3	4.2	19.0	0.67 J	0.47 J	0.63 J	22.0	0.26 J	0.38 J	0.32 J	12.0
Benzo(a)anthracene	280	3.1	3.8	7.9	1.0	0.97	1.5	15.0	0.61	0.89	0.94	13.0
Benzo(a)pyrene	110	2.7	3.8	7.0	1.1	1.3	1.7	10.0	0.80	1.0	1.3	10.0
Benzo(b)fluoranthene	160	3.9	5.1	9.0	1.5	1.8	2.4	11.0	1.2	1.4	1.9	14.0
Benzo(g,h,i)perylene	50.0 J	0.76 J	1.6	2.0	0.36 J	0.45 J	0.46 J	3.6 J	0.24 J	0.26 J	0.33 J	2.2 J
Benzo(k)fluoranthene	61.0	1.7	2.2	4.2	0.77	0.95	1.3	5.2	0.47	0.78	0.90	6.7
Chrysene	270	3.9	4.6	8.8	1.4	1.1 J	1.7	15.0	0.60 J	0.83	1.0	12.0
dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	1500	8.8	13.0	24.0	2.3	2.7	3.1	46.0	1.2	1.8	1.8	40.0
Fluorene	1800	2.3	2.7	4.4	0.23 J	0.17 J	0.28 J	15.0	0.092 J	0.12 J	0.11 J	13.0
Indeno(1,2,3-cd)pyrene	58.0	0.93	1.8	2.5	0.44	0.61	0.57	4.2	0.28	0.30	0.41	3.1
Naphthalene	3700	2.8	0.64 J	1.0 J	0.19 J	0.15 J	0.15 J	3.2 J	0.097 J	0.14 J	0.099 J	13.0
Phenanthrene	3600	7.4	10.0	19.0	0.78	0.78 J	1.6	69.0	0.39 J	0.59 J	0.49 J	42.0
Pyrene	960	7.7	10.0	20.0	2.2	2.5	3.2	40.0	1.3	2.0	2.2	30.0
Total PAHs	17400	53.1	67.9	135	13.5	14.5	19.3	277	7.9	10.9	12.3	228
PCBs												
Aroclor-1016	0.16 U	0.16 U	0.15 U	0.15 U	0.16 U	0.15 U	0.14 U	0.13 U	0.14 U	0.14 U	0.15 U	0.70 U
Aroclor-1221	0.16 U	0.16 U	0.15 U	0.15 U	0.16 U	0.15 U	0.14 U	0.13 U	0.14 U	0.14 U	0.15 U	0.70 U
Aroclor-1232	0.16 U	0.16 U	0.15 U	0.15 U	0.16 U	0.15 U	0.14 U	0.13 U	0.14 U	0.14 U	0.15 U	0.70 U
Aroclor-1242	0.85	0.55	1.0	1.6	0.67 P	0.83 P	0.57	0.13 U	0.65 P	1.3	0.56 P	4.7
Aroclor-1248	0.16 U	0.16 U	0.15 U	0.15 U	0.16 U	0.15 U	0.14 U	0.13 U	0.14 U	0.14 U	0.15 U	0.70 U
Aroclor-1254	0.98	0.32	0.63	0.70	0.29	0.58	0.33	0.13 U	0.27	0.62	0.25	1.8
Aroclor-1260	0.45	0.22	0.31	0.35	0.16 U	0.47	0.14 U	0.24	0.14 U	0.24	0.15 U	0.70 U
Aroclor-1268	0.16 U	0.16 U	0.15 U	0.15 U	0.16 U	0.15 U	0.14 U	0.13 U	0.14 U	0.14 U	0.15 U	0.70 U
Total PCBs	2.3	1.1	1.9	2.7	0.96	1.9	0.90	0.24	0.92	2.2	0.81	6.5
Metals												
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	1860	292	429	576	95.8	141	27.1	125	11.6	20.2	13.2	27.9
Barium	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	139	74.8	127	118	76.6	128	77.0	137	69.9	169	80.0	218
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	--	--	--	--	--	--

SEDIMENT SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	99169-10	99169-11	99169-12	99169-13	99169-14	99169-15	99170-01	99170-02	99170-03	99170-04	99170-05	99170-06
Location	SC-04	SC-05	SC-05	SC-05	SC-06	SC-06	SC-07	SC-07	SC-08	SC-08	SC-09	SC-09
Date Sampled	6/18/99	6/18/99	6/18/99	6/18/99	6/18/99	6/18/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99
Sampling Depth	4	0	4	4	0	4	0	4	0	2	0	4
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Lead	542	254	194	169	107	158	118	241	92.7	198	106	220
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--	--	--
Grain Size												
Percent Coarse Gravel	--	--	--	--	ND	--	--	--	ND	--	ND	--
Percent Coarse Sand	--	--	--	--	ND	--	--	--	0.030	--	0.060	--
Percent Fine Gravel	--	--	--	--	ND	--	--	--	ND	--	ND	--
Percent Fine Sand	--	--	--	--	0.090	--	--	--	0.15	--	0.20	--
Percent Finer (0_001mm)	--	--	--	--	4.6	--	--	--	3.0	--	5.0	--
Percent Finer (0_002mm)	--	--	--	--	7.7	--	--	--	5.9	--	10.0	--
Percent Finer (0_003mm)	--	--	--	--	10.7	--	--	--	9.6	--	11.0	--
Percent Finer (0_005mm)	--	--	--	--	13.0	--	--	--	11.9	--	14.0	--
Percent Finer (0_006mm)	--	--	--	--	19.9	--	--	--	17.8	--	22.0	--
Percent Finer (0_009mm)	--	--	--	--	28.4	--	--	--	23.0	--	29.0	--
Percent Finer (0_012mm)	--	--	--	--	36.8	--	--	--	29.7	--	40.0	--
Percent Finer (0_016mm)	--	--	--	--	44.5	--	--	--	38.6	--	48.0	--
Percent Finer (0_021mm)	--	--	--	--	53.7	--	--	--	46.0	--	58.0	--
Percent Finer (0_029mm)	--	--	--	--	61.4	--	--	--	54.9	--	64.0	--
Percent Fines	--	--	--	--	99.9	--	--	--	99.7	--	99.7	--
Percent Medium Sand	--	--	--	--	ND	--	--	--	0.13	--	ND	--
Percent Moisture	--	--	--	--	116	--	--	--	98.4	--	112	--
Total Organic Carbon	--	--	--	--	35700	--	--	--	29000	--	34600	--
pH	--	--	--	--	7.5	--	--	--	7.3	--	7.6	--

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SEDIMENT SAMPLING RESULTS [mg/kg]

QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	99170-07	99170-08	99170-09	99170-10	99170-11	99170-12	99170-13	99170-14	99170-15	99170-16	99170-17	99170-18
Location	SC-10	SC-10	SC-11	SC-11	SC-12	SC-12	SC-13	SC-13	SC-13	SC-14	SC-14	SC-15
Date Sampled	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99
Sampling Depth	0	4	0	4	0	4	0	4	4	0	4	0
VOCs												
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--
2,2'-oxybis(1-Chloropropane)	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (methylene chloride)	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--

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SEDIMENT SAMPLING RESULTS [mg/kg]

QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	99170-07	99170-08	99170-09	99170-10	99170-11	99170-12	99170-13	99170-14	99170-15	99170-16	99170-17	99170-18
Location	SC-10	SC-10	SC-11	SC-11	SC-12	SC-12	SC-13	SC-13	SC-13	SC-14	SC-14	SC-15
Date Sampled	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99
Sampling Depth	0	4	0	4	0	4	0	4	4	0	4	0
PAHs												
Acenaphthene	0.077 J	0.067 J	3.8	16.0	0.77	2.0	0.27 J	0.078 J	0.094 J	0.66 J	3.2	0.18 J
Acenaphthylene	0.31 J	0.24 J	1.5 J	1.8 J	0.68 J	0.78	0.37 J	0.22 J	0.28 J	0.44 J	0.87 J	0.30 J
Anthracene	0.32 J	0.24 J	6.4	11.0	1.4	1.3	0.69 J	0.25 J	0.31 J	1.4	4.2	0.40 J
Benzo(a)anthracene	0.85	0.56	16.0	11.0	4.1	2.5	1.3	0.57	1.1	3.2	3.8	0.62
Benzo(a)pyrene	0.92	0.65	18.0	8.7	4.8	2.5	1.6	0.69	0.99	3.4	3.0	0.80
Benzo(b)fluoranthene	1.2	0.82	24.0	11.0	6.8	3.3	2.0	0.72	1.2	4.1	4.0	1.0
Benzo(g,h,i)perylene	0.30 J	0.32 J	4.8	3.7 J	1.0	0.76	0.54 J	0.41 J	0.37 J	1.1	1.9	0.46 J
Benzo(k)fluoranthene	0.52	0.28	9.7	4.7	3.0	1.5	0.89	0.32	0.57	1.8	1.8	0.51
Chrysene	0.93	0.53 J	17.0	12.0	4.4	2.2	1.4	0.66 J	1.1	3.3	4.3	0.92
dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	1.7	1.2 J	36.0	36.0	8.3	8.9	2.5	1.1	2.1	7.2	12.0	2.4
Fluorene	0.11 J	0.084 J	2.3 J	11.0	0.53 J	0.56 J	0.22 J	0.089 J	0.10 J	0.59 J	3.2	0.20 J
Indeno(1,2,3-cd)pyrene	0.39	0.34	6.3	3.8	1.3	0.86	0.63	0.39	0.36	1.2	1.8	0.45
Naphthalene	0.081 J	0.12 J	1.7 J	2.5 J	0.36 J	0.41 J	0.19 J	0.055 J	0.10 J	0.78	4.5	0.19 J
Phenanthrene	0.73 J	0.39 J	17.0	48.0	3.8	2.6	1.8	0.57 J	0.67 J	4.7	14.0	2.3
Pyrene	1.6	1.2 J	33.0	30.0	8.3	5.0	2.2	1.1	1.6	5.7	9.3	1.7
Total PAHs	10.0	7.0	198	211	49.5	35.2	16.6	7.2	10.9	39.6	71.9	12.4
PCBs												
Aroclor-1016	0.16 U	0.14 U	0.12 U	0.12 U	0.15 U	0.13 U	0.14 U	0.13 U	0.14 U	0.14 U	0.12 U	0.15 U
Aroclor-1221	0.16 U	0.14 U	0.12 U	0.12 U	0.15 U	0.13 U	0.14 U	0.13 U	0.14 U	0.14 U	0.12 U	0.15 U
Aroclor-1232	0.16 U	0.14 U	0.12 U	0.12 U	0.15 U	0.13 U	0.14 U	0.13 U	0.14 U	0.14 U	0.12 U	0.15 U
Aroclor-1242	0.52 P	0.75	0.40	0.78	0.59	0.84	0.56	0.67	0.65	0.62 P	0.12 U	0.65
Aroclor-1248	0.16 U	0.14 U	0.12 U	0.12 U	0.15 U	0.13 U	0.14 U	0.13 U	0.14 U	0.14 U	0.12 U	0.15 U
Aroclor-1254	0.21	0.36	0.38 P	0.60	0.30	0.45	0.37	0.35	0.34	0.43	0.24	0.15 U
Aroclor-1260	0.16 U	0.14 U	0.12 U	0.26	0.21	0.23	0.39	0.19	0.14 U	0.22	0.12 U	0.15 U
Aroclor-1268	0.16 U	0.14 U	0.12 U	0.12 U	0.15 U	0.13 U	0.14 U	0.13 U	0.14 U	0.14 U	0.12 U	0.15 U
Total PCBs	0.73	1.1	0.78	1.6	1.1	1.5	1.3	1.2	0.99	1.3	0.24	0.65
Metals												
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	15.6	15.7	38.5	28.9	16.0	15.7	13.1	15.7	15.1	53.6	187	28.9
Barium	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	68.6	121	74.4	107	71.4	125	66.4	108	108	93.9	67.4	88.2
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	--	--	--	--	--	--

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SEDIMENT SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	99170-07	99170-08	99170-09	99170-10	99170-11	99170-12	99170-13	99170-14	99170-15	99170-16	99170-17	99170-18
Location	SC-10	SC-10	SC-11	SC-11	SC-12	SC-12	SC-13	SC-13	SC-13	SC-14	SC-14	SC-15
Date Sampled	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99	6/19/99
Sampling Depth	0	4	0	4	0	4	0	4	4	0	4	0
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Lead	91.6	147	208	388	858	207	150	140	141	140	285	116
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--	--	--
Grain Size												
Percent Coarse Gravel	--	--	--	--	ND	--	--	--	--	ND	--	--
Percent Coarse Sand	--	--	--	--	0.12	--	--	--	--	2.3	--	--
Percent Fine Gravel	--	--	--	--	0.67	--	--	--	--	0.51	--	--
Percent Fine Sand	--	--	--	--	2.9	--	--	--	--	6.8	--	--
Percent Finer (0_001mm)	--	--	--	--	3.7	--	--	--	--	3.2	--	--
Percent Finer (0_002mm)	--	--	--	--	8.3	--	--	--	--	5.2	--	--
Percent Finer (0_003mm)	--	--	--	--	8.3	--	--	--	--	7.1	--	--
Percent Finer (0_005mm)	--	--	--	--	9.2	--	--	--	--	7.8	--	--
Percent Finer (0_006mm)	--	--	--	--	16.5	--	--	--	--	11.7	--	--
Percent Finer (0_009mm)	--	--	--	--	26.6	--	--	--	--	21.4	--	--
Percent Finer (0_012mm)	--	--	--	--	33.0	--	--	--	--	28.5	--	--
Percent Finer (0_016mm)	--	--	--	--	40.4	--	--	--	--	36.3	--	--
Percent Finer (0_021mm)	--	--	--	--	49.5	--	--	--	--	42.8	--	--
Percent Finer (0_029mm)	--	--	--	--	56.9	--	--	--	--	50.6	--	--
Percent Fines	--	--	--	--	95.8	--	--	--	--	83.8	--	--
Percent Medium Sand	--	--	--	--	0.51	--	--	--	--	6.6	--	--
Percent Moisture	--	--	--	--	107	--	--	--	--	103	--	--
Total Organic Carbon	--	--	--	--	38800	--	--	--	--	36500	--	--
pH	--	--	--	--	7.7	--	--	--	--	7.9	--	--

T[illegible]
SEDIMENT SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	99170-19	99170-20	99170-21	QRC-1	QRC-10	QRC-11	QRC-12	QRC-13	QRC-14	QRC-15	QRC-16	QRC-17
Location	SC-15	SC-16	SC-16	QRC-01	QRC-10	QRC-11	QRC-12	QRC-13	QRC-14	QRC-15	QRC-16	QRC-17
Date Sampled	6/19/99	6/19/99	6/19/99	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95
Sampling Depth	4	0	4	--	--	--	--	--	--	--	--	--
VOCs												
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--
2,2'-oxybis(1-Chloropropane)	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (methylene chloride)	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--

TA.
SEDIMENT SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	99170-19	99170-20	99170-21	QRC-1	QRC-10	QRC-11	QRC-12	QRC-13	QRC-14	QRC-15	QRC-16	QRC-17
Location	SC-15	SC-16	SC-16	QRC-01	QRC-10	QRC-11	QRC-12	QRC-13	QRC-14	QRC-15	QRC-16	QRC-17
Date Sampled	6/19/99	6/19/99	6/19/99	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95
Sampling Depth	4	0	4	--	--	--	--	--	--	--	--	--
PAHs												
Acenaphthene	6.3	0.16 J	0.18 J	ND	ND	ND	ND	0.40 J	ND	ND	ND	ND
Acenaphthylene	1.8 J	0.40 J	0.23 J	ND	ND	ND	ND	0.18	ND	ND	ND	ND
Anthracene	8.0	0.44 J	0.32 J	ND	ND	ND	ND	0.77	ND	ND	ND	ND
Benzo(a)anthracene	5.9	0.96	0.58	ND	ND	ND	ND	1.1	ND	ND	ND	ND
Benzo(a)pyrene	4.3	1.2	0.64	ND	ND	ND	ND	0.86	ND	ND	ND	ND
Benzo(b)fluoranthene	5.2	1.6	0.75	ND	ND	ND	ND	1.0	ND	ND	ND	ND
Benzo(g,h,i)perylene	2.4 J	0.38 J	0.30 J	ND	ND	ND	ND	0.47 J	ND	ND	ND	ND
Benzo(k)fluoranthene	2.7	0.83	0.33	ND	ND	ND	ND	0.52 J	ND	ND	ND	ND
Chrysene	6.5	1.0	0.69 J	ND	0.25 J	ND	0.23 J	1.2	ND	ND	ND	ND
dibenzo(a,h)anthracene	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	18.0	1.5	1.4	ND	0.51 J	0.45 J	0.60 J	2.9	ND	ND	ND	ND
Fluorene	7.0	0.12 J	0.13 J	ND	ND	ND	ND	0.56	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	2.4	0.45	0.32	ND	ND	ND	ND	0.45 J	ND	ND	ND	ND
Naphthalene	6.3	0.12 J	0.14 J	ND	0.33 J	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	29.0	0.76	0.64 J	ND	0.36 J	ND	0.35 J	2.7	ND	ND	ND	ND
Pyrene	15.0	1.7	1.3	ND	0.28 J	0.25 J	0.32 J	1.9	ND	ND	ND	ND
Total PAHs	121	11.6	7.9	0.0	1.7	0.70	1.5	15.0	0.0	0.0	0.0	0.0
PCBs												
Aroclor-1016	0.14 U	0.15 U	0.15 U	--	--	--	--	--	--	--	--	--
Aroclor-1221	0.14 U	0.15 U	0.15 U	--	--	--	--	--	--	--	--	--
Aroclor-1232	0.14 U	0.15 U	0.15 U	--	--	--	--	--	--	--	--	--
Aroclor-1242	0.14 U	0.57	1.9	--	--	--	--	--	--	--	--	--
Aroclor-1248	0.14 U	0.15 U	0.15 U	--	--	--	--	--	--	--	--	--
Aroclor-1254	0.27	0.15 U	0.65	--	--	--	--	--	--	--	--	--
Aroclor-1260	0.14 U	0.15 U	0.20	--	--	--	--	--	--	--	--	--
Aroclor-1268	0.14 U	0.15 U	0.15 U	--	--	--	--	--	--	--	--	--
Total PCBs	0.27	0.57	2.7	--	--	--	--	--	--	--	--	--
Metals												
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	112	17.4	16.8	--	--	--	--	--	--	--	--	--
Barium	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	152	74.3	156	--	--	--	--	--	--	--	--	--
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	--	--	--	--	--	--

SEDIMENT SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	99170-19	99170-20	99170-21	QRC-1	QRC-10	QRC-11	QRC-12	QRC-13	QRC-14	QRC-15	QRC-16	QRC-17
Location	SC-15	SC-16	SC-16	QRC-01	QRC-10	QRC-11	QRC-12	QRC-13	QRC-14	QRC-15	QRC-16	QRC-17
Date Sampled	6/19/99	6/19/99	6/19/99	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95
Sampling Depth	4	0	4	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--
Lead	358	105	188	--	--	--	--	--	--	--	--	--
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--	--	--
Grain Size												
Percent Coarse Gravel	--	--	--	--	--	--	--	--	--	--	--	--
Percent Coarse Sand	--	--	--	--	--	--	--	--	--	--	--	--
Percent Fine Gravel	--	--	--	--	--	--	--	--	--	--	--	--
Percent Fine Sand	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_001mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_002mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_003mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_005mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_006mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_009mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_012mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_016mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_021mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_029mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Fines	--	--	--	--	--	--	--	--	--	--	--	--
Percent Medium Sand	--	--	--	--	--	--	--	--	--	--	--	--
Percent Moisture	--	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon	--	--	--	--	--	--	--	--	--	--	--	--
pH	--	--	--	--	--	--	--	--	--	--	--	--

T.

SEDIMENT SAMPLING RESULTS [mg/kg]

QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	QRC-18	QRC-2	QRC-20	QRC-24	QRC-3	QRC-4	QRC-5	QRC-6	QRC-7	QRC-8	QRC-9	SED-1
Location	QRC-18	QRC-02	QRC-20	QRC-24	QRC-03	QRC-04	QRC-05	QRC-06	QRC-07	QRC-08	QRC-09	SED-01
Date Sampled	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	3/27/98
Sampling Depth	--	--	--	--	--	--	--	--	--	--	--	--
VOCs												
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--
2,2'-oxybis(1-Chloropropane)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
2-Butanone (MEK)	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane (methylene chloride)	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl benzene	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
Tetrachloroethene	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs	--	--	--	--	--	--	--	--	--	--	--	--

TA.

SEDIMENT SAMPLING RESULTS [mg/kg]

QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	QRC-18	QRC-2	QRC-20	QRC-24	QRC-3	QRC-4	QRC-5	QRC-6	QRC-7	QRC-8	QRC-9	SED-1
Location	*QRC-18*	*QRC-02*	*QRC-20*	*QRC-24*	*QRC-03*	QRC-04	QRC-05	QRC-06	QRC-07	QRC-08	QRC-09	SED-01
Date Sampled	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	3/27/98
Sampling Depth	--	--	--	--	--	--	--	--	--	--	--	--
PAHs												
Acenaphthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.40 J	--
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.31 J	--
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.53 J	--
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.53 J	--
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.58 J	--
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.32 J	--
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.30 J	--
Chrysene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.65 J	--
dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
Fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.7 J	--
Fluorene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.29 J	--
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.28 J	--
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.7 J	--
Phenanthrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2 J	--
Pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.94 J	--
Total PAHs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	--
PCBs												
Aroclor-1016	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1221	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1232	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1242	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1248	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1254	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1260	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--	--	--
Total PCBs	--	--	--	--	--	--	--	--	--	--	--	--
Metals												
Aluminum	--	--	--	--	--	--	--	--	--	--	--	13500 J
Antimony	--	--	--	--	--	--	--	--	--	--	--	ND
Arsenic	--	--	--	--	--	--	--	--	--	--	--	17.6 J
Barium	--	--	--	--	--	--	--	--	--	--	--	72.4 BJ
Beryllium	--	--	--	--	--	--	--	--	--	--	--	0.74 BJ
Cadmium	--	--	--	--	--	--	--	--	--	--	--	1.1 BJ
Calcium	--	--	--	--	--	--	--	--	--	--	--	5370 J
Chromium	--	--	--	--	--	--	--	--	--	--	--	66.1 J
Cobalt	--	--	--	--	--	--	--	--	--	--	--	12.2 BJ
Copper	--	--	--	--	--	--	--	--	--	--	--	136 J

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SEDIMENT SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	QRC-18	QRC-2	QRC-20	QRC-24	QRC-3	QRC-4	QRC-5	QRC-6	QRC-7	QRC-8	QRC-9	SED-1
Location	QRC-18	QRC-02	QRC-20	QRC-24	QRC-03	QRC-04	QRC-05	QRC-06	QRC-07	QRC-08	QRC-09	SED-01
Date Sampled	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	6/16/95	3/27/98
Sampling Depth	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	30200 J
Lead	--	--	--	--	--	--	--	--	--	--	--	127 J
Magnesium	--	--	--	--	--	--	--	--	--	--	--	7210 J
Manganese	--	--	--	--	--	--	--	--	--	--	--	877 J
Mercury	--	--	--	--	--	--	--	--	--	--	--	2.3 J
Nickel	--	--	--	--	--	--	--	--	--	--	--	40.1 J
Potassium	--	--	--	--	--	--	--	--	--	--	--	2810 BJ
Selenium	--	--	--	--	--	--	--	--	--	--	--	ND
Silver	--	--	--	--	--	--	--	--	--	--	--	4.2 BJ
Sodium	--	--	--	--	--	--	--	--	--	--	--	7940 J
Thallium	--	--	--	--	--	--	--	--	--	--	--	ND
Vanadium	--	--	--	--	--	--	--	--	--	--	--	32.9 J
Zinc	--	--	--	--	--	--	--	--	--	--	--	248 J
Grain Size												
Percent Coarse Gravel	--	--	--	--	--	--	--	--	--	--	--	--
Percent Coarse Sand	--	--	--	--	--	--	--	--	--	--	--	--
Percent Fine Gravel	--	--	--	--	--	--	--	--	--	--	--	--
Percent Fine Sand	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_001mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_002mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_003mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_005mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_006mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_009mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_012mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_016mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_021mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Finer (0_029mm)	--	--	--	--	--	--	--	--	--	--	--	--
Percent Fines	--	--	--	--	--	--	--	--	--	--	--	--
Percent Medium Sand	--	--	--	--	--	--	--	--	--	--	--	--
Percent Moisture	--	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon	--	--	--	--	--	--	--	--	--	--	--	--
pH	--	--	--	--	--	--	--	--	--	--	--	--

T.

SEDIMENT SAMPLING RESULTS [mg/kg]
QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	SED-2	SED-3	SED-4	SED-5	SED-6
Location	SED-02	SED-03	SED-04	SED-05	SED-06
Date Sampled	3/27/98	3/27/98	3/27/98	3/27/98	3/27/98
Sampling Depth	--	--	--	--	--
VOCs					
1,1,1-Trichloroethane	--	--	--	--	--
1,1,2,2-Tetrachloroethane	--	--	--	--	--
1,1,2-Trichloroethane	--	--	--	--	--
1,1-Dichloroethane	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--
2,2'-oxybis(1-Chloropropane)	--	--	--	--	--
2-Butanone (MEK)	--	--	--	--	--
2-Hexanone	--	--	--	--	--
4-Methyl-2-Pentanone	--	--	--	--	--
Acetone	--	--	--	--	--
Benzene	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--
Bromoform	--	--	--	--	--
Bromomethane	--	--	--	--	--
Carbon Disulfide	--	--	--	--	--
Carbon Tetrachloride	--	--	--	--	--
Chloroethane	--	--	--	--	--
Chloroform	--	--	--	--	--
Chloromethane	--	--	--	--	--
cis-1,2-Dichloroethene	--	--	--	--	--
cis-1,3-Dichloropropene	--	--	--	--	--
Dibromochloromethane	--	--	--	--	--
Dichloromethane (methylene chloride)	--	--	--	--	--
Ethyl benzene	--	--	--	--	--
Hexachloroethane	--	--	--	--	--
Tetrachloroethene	--	--	--	--	--
Toluene	--	--	--	--	--
trans-1,2-Dichloroethene	--	--	--	--	--
trans-1,3-Dichloropropene	--	--	--	--	--
Trichloroethene	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--
Xylenes (unspecified)	--	--	--	--	--
Total VOCs	--	--	--	--	--

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SEDIMENT SAMPLING RESULTS [mg/kg]

QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	SED-2	SED-3	SED-4	SED-5	SED-6
Location	SED-02	SED-03	SED-04	SED-05	SED-06
Date Sampled	3/27/98	3/27/98	3/27/98	3/27/98	3/27/98
Sampling Depth	--	--	--	--	--
PAHs					
Acenaphthene	--	--	--	--	--
Acenaphthylene	--	--	--	--	--
Anthracene	--	--	--	--	--
Benzo(a)anthracene	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	--
Chrysene	--	--	--	--	--
dibenzo(a,h)anthracene	--	--	--	--	--
Fluoranthene	--	--	--	--	--
Fluorene	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	--
Naphthalene	--	--	--	--	--
Phenanthrene	--	--	--	--	--
Pyrene	--	--	--	--	--
Total PAHs	--	--	--	--	--
PCBs					
Aroclor-1016	--	--	--	--	--
Aroclor-1221	--	--	--	--	--
Aroclor-1232	--	--	--	--	--
Aroclor-1242	--	--	--	--	--
Aroclor-1248	--	--	--	--	--
Aroclor-1254	--	--	--	--	--
Aroclor-1260	--	--	--	--	--
Aroclor-1268	--	--	--	--	--
Total PCBs	--	--	--	--	--
Metals					
Aluminum	14400 J	16800 J	16500 J	13900 J	15800 J
Antimony	ND	ND	ND	ND	ND
Arsenic	17.0 J	116 J	126 J	14.1 J	15.0 J
Barium	62.4 BJ	76.3 BJ	79.8 BJ	56.1 BJ	67.5 BJ
Beryllium	0.76 BJ	0.96 BJ	0.98 BJ	0.71 BJ	0.80 BJ
Cadmium	1.2 BJ	1.1 BJ	1.8 BJ	0.65 BJ	0.84 BJ
Calcium	27200 J	6460 J	6220 J	4460 J	ND
Chromium	81.0 J	103 J	104 J	59.7 J	61.3 J
Cobalt	12.6 BJ	17.3 BJ	16.8 BJ	12.0 BJ	11.7 BJ
Copper	ND	ND	ND	76.5 J	ND

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SEDIMENT SAMPLING RESULTS [mg/kg]

QUANTA RESOURCES SITE, EDGEWATER, NEW JERSEY

Sample ID	SED-2	SED-3	SED-4	SED-5	SED-6
Location	SED-02	SED-03	SED-04	SED-05	SED-06
Date Sampled	3/27/98	3/27/98	3/27/98	3/27/98	3/27/98
Sampling Depth	--	--	--	--	--
Iron	34600 J	42500 J	41500 J	29200 J	30100 J
Lead	127 J	135 J	142 J	83.5 J	96.5 J
Magnesium	11100 J	9100 J	8920 J	7050 J	7630 J
Manganese	569 J	2050 J	2050 J	1150 J	1280 J
Mercury	1.3 J	1.1 J	1.9 J	1.3 J	0.84 J
Nickel	29.3 J	36.9 J	36.5 J	29.0 J	32.1 J
Potassium	2910 BJ	3420 BJ	3560 BJ	2840 BJ	3430 J
Selenium	ND	ND	ND	ND	ND
Silver	4.2 BJ	7.0 BJ	6.3 BJ	3.9 BJ	3.6 BJ
Sodium	6830 J	7630 J	8600 J	6390 J	7930 J
Thallium	ND	ND	ND	ND	ND
Vanadium	34.7 J	44.2 J	43.3 BJ	30.9 BJ	32.5 BJ
Zinc	229 J	ND	ND	177 J	273 J
Grain Size					
Percent Coarse Gravel	--	--	--	--	--
Percent Coarse Sand	--	--	--	--	--
Percent Fine Gravel	--	--	--	--	--
Percent Fine Sand	--	--	--	--	--
Percent Finer (0_001mm)	--	--	--	--	--
Percent Finer (0_002mm)	--	--	--	--	--
Percent Finer (0_003mm)	--	--	--	--	--
Percent Finer (0_005mm)	--	--	--	--	--
Percent Finer (0_006mm)	--	--	--	--	--
Percent Finer (0_009mm)	--	--	--	--	--
Percent Finer (0_012mm)	--	--	--	--	--
Percent Finer (0_016mm)	--	--	--	--	--
Percent Finer (0_021mm)	--	--	--	--	--
Percent Finer (0_029mm)	--	--	--	--	--
Percent Fines	--	--	--	--	--
Percent Medium Sand	--	--	--	--	--
Percent Moisture	--	--	--	--	--
Total Organic Carbon	--	--	--	--	--
pH	--	--	--	--	--

-- indicates the constituent was not analyzed in the sample

ND indicates the constituent was reported as non detect in the sample without information about the reporting limit being provided

U indicates the constituent was reported as non detect in the sample; the value presented represents the reporting limit

J indicates the concentration was estimated in the sample

B indicates the constituent was present below the reporting limit

TABLE [illegible]3

Surface Sediment Sample Basic Physical and Chemical Results

Quanta Resources Site, Edgewater, New Jersey

	Location	SED-5	SED-6	SED-7	SED-8	SED-9	SED-10	SED-11	SED-12	SED-13
	Date Sampled	17-Jun-99	17-Jun-99	17-Jun-99	17-Jun-99	15-Jun-99	17-Jun-99	17-Jun-99	15-Jun-99	17-Jun-99
	Sample ID	99168-10	99168-11	99168-04	99168-06	99166-02	99168-07	99168-08	99166-01	99168-09
	Depth (ft)	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Parameter	Units									
Percent Coarse Gravel	%	0	0	0	0	0	0	0	0	0
Percent Fine Gravel	%	0	0	0	0.0100	0	0.12	0.080	0	0.030
Percent Coarse Sand	%	0.060	0.020	0.040	0.040	0.020	0.030	0.060	0.10	0.080
Percent Medium Sand	%	0.18	0.070	0.080	0.15	0	0.040	0.080	0.15	0.12
Percent Fine Sand	%	0.23	1.5	0.59	0.10	0.48	0.13	2.7	0.21	3.4
Percent Fines	%	99.5	98.5	99.3	99.7	99.5	99.7	97.1	99.5	96.4
Percent Finer (0.001mm)	%	5.1	4.0	5.8	6.4	5.8	5.6	5.3	3.8	4.1
Percent Finer (0.002mm)	%	8.2	6.0	7.0	8.4	7.9	9.7	7.3	6.3	6.8
Percent Finer (0.003mm)	%	10.1	8.0	8.9	10.3	10.1	11.1	9.9	8.8	8.2
Percent Finer (0.005mm)	%	12.7	9.9	10.2	11.6	13.0	13.2	11.2	11.4	9.5
Percent Finer (0.006mm)	%	17.7	14.6	14.1	18.0	17.3	19.5	17.2	16.4	12.3
Percent Finer (0.009mm)	%	24.7	20.6	18.5	23.1	25.2	25.7	23.1	23.4	19.8
Percent Finer (0.012mm)	%	31.6	26.5	25.5	32.1	31.2	34.8	30.4	29.0	27.2
Percent Finer (0.016mm)	%	41.8	31.9	33.2	38.5	36.0	44.5	35.7	34.1	31.3
Percent Finer (0.021mm)	%	49.4	38.5	41.5	47.5	46.1	50.0	43.6	40.4	38.1
Percent Finer (0.029mm)	%	58.2	45.1	47.9	51.4	53.3	58.4	48.8	46.7	42.2
Percent Moisture	%	105	110	147	147	115	124	115	110	96.3
pH	SU	7.8	7.6	7.5	7.8	8.1	7.9	7.8	8.3	7.8
Total Organic Carbon	mg/kg	33300	21600	28400	33500	29200	34200	25500	27900	25900

TABLE 6
Surface Sediment Sample Basic Physical and Chemical Results
Quanta Resources Site, Edgewater, New Jersey

	Location	SC-02	SC-06	SC-08	SC-09	SC-12	SC-14
	Date Sampled	18-Jun-99	18-Jun-99	19-Jun-99	19-Jun-99	19-Jun-99	19-Jun-99
	Sample ID	99169-05	99169-14	99170-03	99170-05	99170-11	99170-16
	Depth (ft)	0-1	0-1	0-1	0-1	0-1	0-1
Parameter	Units						
Percent Coarse Gravel	%	0	0	0	0	0	0
Percent Fine Gravel	%	0	0	0	0	0.67	0.51
Percent Coarse Sand	%	0.020	0	0.030	0.060	0.12	2.3
Percent Medium Sand	%	0	0	0.13	0	0.51	6.6
Percent Fine Sand	%	0.090	0.090	0.15	0.20	2.9	6.8
Percent Fines	%	99.9	99.9	99.7	99.7	95.8	83.8
Percent Finer (0.001mm)	%	5.0	4.6	3.0	5.0	3.7	3.2
Percent Finer (0.002mm)	%	7.5	7.7	5.9	10.0	8.3	5.2
Percent Finer (0.003mm)	%	8.8	10.7	9.6	11.0	8.3	7.1
Percent Finer (0.005mm)	%	10.6	13.0	11.9	14.0	9.2	7.8
Percent Finer (0.006mm)	%	16.2	19.9	17.8	22.0	16.5	11.7
Percent Finer (0.009mm)	%	24.4	28.4	23.0	29.0	26.6	21.4
Percent Finer (0.012mm)	%	33.7	36.8	29.7	40.0	33.0	28.5
Percent Finer (0.016mm)	%	42.5	44.5	38.6	48.0	40.4	36.3
Percent Finer (0.021mm)	%	51.2	53.7	46.0	58.0	49.5	42.8
Percent Finer (0.029mm)	%	60.0	61.4	54.9	64.0	56.9	50.6
Percent Moisture	%	109	116	98.4	112	107	103
pH	SU	7.6	7.5	7.3	7.6	7.7	7.9
Total Organic Carbon	mg/kg	33400	35700	29000	34600	38800	36500

TA[illegible]

GROUNDWATER SAMPLING RESULTS [µg/l]

QUANTA RESOURCES SITE, EDGEWATER, NJ

Sample ID	98311-MW20	98311-MW31	98312-MW2	98312-MW21	98314-MW1	98316-MW7	98323-MW3	98323-MW6	98324-MW11
Location	MW-20	MW-31	MW-2	MW-21	MW-1	MW-7	MW-3	MW-6	MW-11
Date Sampled	11/7/98	11/7/98	11/8/98	11/8/98	11/10/98	11/12/98	11/19/98	11/19/98	11/20/98
VOCs									
1,1,1-Trichloroethane	0.20 U	0.20 U	2.0 U	5.0 U	1.0 U	2.0 U	0.20 U	20.0 U	0.20 U
1,1,2,2-Tetrachloroethane	0.30 U	0.30 U	3.3 U	8.2 U	1.6 U	3.3 U	0.30 U	33.0 U	0.30 U
1,1,2-Trichloroethane	0.40 U	0.40 U	4.3 U	11.0 U	2.2 U	4.3 U	0.40 U	43.0 U	0.40 U
1,1-Dichloroethane	0.30 U	0.30 U	3.1 U	7.8 U	11.0	3.1 U	0.30 U	31.0 U	0.30 U
1,1-Dichloroethene	0.60 U	0.60 U	5.5 U	14.0 U	2.8 U	5.5 U	0.60 U	55.0 U	0.60 U
1,2-Dichloroethane	0.20 U	0.20 U	2.2 U	5.5 U	1.1 U	2.2 U	0.20 U	22.0 U	0.20 U
1,2-Dichloropropane	0.50 U	0.50 U	4.6 U	12.0 U	2.3 U	4.6 U	0.50 U	46.0 U	0.50 U
2-Butanone (MEK)	5.0 U	5.0 U	50.0 U	120 U	25.0 U	50.0 U	5.0 U	500 U	5.0 U
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--
2-Hexanone	5.0 U	5.0 U	50.0 U	120 U	25.0 U	50.0 U	5.0 U	500 U	5.0 U
4-Methyl-2-Pentanone	5.0 U	5.0 U	50.0 U	120 U	25.0 U	50.0 U	5.0 U	500 U	5.0 U
Acetone	5.0 U	5.0 U	50.0 U	120 U	25.0 U	50.0 U	5.0 U	500 U	5.0 U
Benzene	0.90	4.5	1900	100	56.0	1300	0.20 U	310	0.20 U
Bromodichloromethane	0.20	0.20 U	1.9 U	4.8 U	0.90 U	1.9 U	0.20 U	19.0 U	0.20 U
Bromoform	0.30 U	0.30 U	3.0 U	7.5 U	1.5 U	3.0 U	0.30 U	30.0 U	0.30 U
Bromomethane	0.30 U	0.30 U	2.7 U	6.8 U	1.4 U	2.7 U	0.30 U	27.0 U	0.30 U
Carbon Disulfide	1.0 U	1.0 U	10.0 U	25.0 U	5.0 U	10.0 U	1.0 U	100 U	1.0 U
Carbon Tetrachloride	0.20 U	0.20 U	1.6 U	4.0 U	0.80 U	1.6 U	0.20 U	16.0 U	0.20 U
Chlorobenzene	0.10 U	0.10 U	1.4 U	3.5 U	5.4	1.4 U	0.10 U	14.0 U	0.10 U
Chloroethane	1.0 U	1.0 U	10.0 U	26.0 U	5.2 U	10.0 U	1.0 U	100 U	1.0 U
Chloroform	1.5	2.2	2.0 U	5.0 U	1.6	2.0 U	0.20 U	20.0 U	0.20 U
Chloromethane	0.90 U	0.90 U	9.3 U	23.0 U	4.6 U	9.3 U	0.90 U	93.0 U	0.90 U
cis-1,2-Dichloroethene	1.0 U	1.0 U	10.0 U	25.0 U	5.0 U	10.0 U	1.0 U	100 U	1.0 U
cis-1,3-Dichloropropene	0.30 U	0.30 U	3.3 U	8.2 U	1.6 U	3.3 U	0.30 U	33.0 U	0.30 U
Dibromochloromethane	0.20 U	0.20 U	2.3 U	5.8 U	1.2 U	2.3 U	0.20 U	23.0 U	0.20 U
Dichloromethane (Methylene Chloride)	1.0 U	1.0 U	10.0 U	26.0 U	5.2 U	10.0 U	1.0 U	100 U	1.0 U
Ethyl benzene	0.70	6.1	480	680	320	220	0.20 U	420	0.20 U
Tetrachloroethene	0.40	0.20	1.0 U	2.5 U	0.50 U	1.0 U	0.10 U	10.0 U	0.10 U
Toluene	0.40	5.2	230	490	220	520	0.20 U	18.0 U	0.20 U
trans-1,2-Dichloroethene	0.30 U	0.30 U	3.0 U	7.5 U	1.5 U	3.0 U	0.30 U	30.0 U	0.30 U
trans-1,3-Dichloropropene	0.30 U	0.30 U	3.1 U	7.8 U	1.6 U	3.1 U	0.30 U	31.0 U	0.30 U
Trichloroethene	1.4	0.90	4.1 U	10.0 U	2.0 U	4.1 U	0.40 U	41.0 U	0.40 U
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--
Vinyl Chloride	0.40 U	0.40 U	3.9 U	9.8 U	2.0 U	3.9 U	0.40 U	39.0 U	0.40 U
Xylenes (unspecified)	1.0 U	20.0	580	2400	1500	740	1.0 U	300	1.0 U
Total VOCs	5.5	39.1	3190	3670	2114	2780	ND	1030	ND
SVOCs									
1,2,4-Trichlorobenzene	1.1 U	2.3 U	12.0 U	110 U	58.0 U	23.0 U	1.2 U	130 U	1.2 U
1,2-Dichlorobenzene	0.90 U	1.8 U	9.4 U	89.0 U	46.0 U	18.0 U	1.0 U	100 U	0.90 U
1,3-Dichlorobenzene	1.0 U	2.0 U	11.0 U	100 U	52.0 U	21.0 U	1.1 U	120 U	1.0 U
1,4-Dichlorobenzene	1.1 U	2.2 U	12.0 U	110 U	57.0 U	22.0 U	1.2 U	130 U	1.1 U

GROUNDWATER SAMPLING RESULTS [μg/l]
QUANTA RESOURCES SITE, EDGEWATER, NJ

Sample ID	98311-MW20	98311-MW31	98312-MW2	98312-MW21	98314-MW1	98316-MW7	98323-MW3	98323-MW6	98324-MW11
Location	MW-20	MW-31	MW-2	MW-21	MW-1	MW-7	MW-3	MW-6	MW-11
Date Sampled	11/7/98	11/7/98	11/8/98	11/8/98	11/10/98	11/12/98	11/19/98	11/19/98	11/20/98
2,2'-oxybis(1-Chloropropane)	0.80 U	1.7 U	8.8 U	84.0 U	43.0 U	17.0 U	0.90 U	98.0 U	0.80 U
2,4,5-Trichlorophenol	2.6 U	5.3 U	--	260 U	140 U	54.0 U	2.9 U	310 U	2.7 U
2,4,6-Trichlorophenol	2.6 U	5.2 U	--	260 U	130 U	52.0 U	2.8 U	300 U	2.6 U
2,4-Dichlorophenol	2.9 U	5.8 U	--	290 U	150 U	59.0 U	3.2 U	340 U	2.9 U
2,4-Dimethylphenol	2.9 U	5.8 U	--	280 U	150 U	160	3.1 U	330 U	2.9 U
2,4-Dinitrophenol	1.3 U	2.6 U	--	130 U	66.0 U	26.0 U	1.4 U	150 U	1.3 U
2,4-Dinitrotoluene	0.60 U	1.1 U	5.8 U	55.0 U	28.0 U	11.0 U	0.60 U	64.0 U	0.60 U
2,6-Dinitrotoluene	0.40 U	0.80 U	4.2 U	40.0 U	20.0 U	8.1 U	0.40 U	46.0 U	0.40 U
2-Chloronaphthalene	1.0 U	2.0 U	10.0 U	100 U	52.0 U	20.0 U	1.1 U	120 U	1.0 U
2-Chlorophenol	2.8 U	5.7 U	--	280 U	140 U	58.0 U	3.1 U	330 U	2.9 U
2-Methylnaphthalene	0.90 U	120	180	860	46.0 U	18.0 U	1.0 U	740	0.90 U
2-Methylphenol	2.4 U	4.7 U	--	230 U	120 U	48.0 U	2.6 U	270 U	2.4 U
2-Nitroaniline	0.50 U	0.90 U	4.8 U	46.0 U	24.0 U	9.4 U	0.50 U	54.0 U	0.50 U
2-Nitrophenol	2.8 U	5.5 U	--	270 U	140 U	56.0 U	3.0 U	320 U	2.8 U
3,3'-Dichlorobenzidine	1.7 U	3.4 U	18.0 U	170 U	86.0 U	34.0 U	1.8 U	200 U	1.7 U
3-Nitroaniline	0.50 U	0.90 U	4.9 U	47.0 U	24.0 U	9.6 U	0.50 U	55.0 U	0.50 U
4,6-Dinitro-2-methylphenol	2.1 U	4.3 U	--	210 U	110 U	43.0 U	2.3 U	250 U	2.2 U
4-Bromophenyl-phenylether	0.40 U	0.80 U	4.2 U	40.0 U	20.0 U	8.1 U	0.40 U	46.0 U	0.40 U
4-Chloro-3-methylphenol	2.8 U	5.7 U	--	280 U	140 U	58.0 U	3.1 U	330 U	2.9 U
4-Chloroaniline	0.50 U	1.1 U	5.6 U	53.0 U	27.0 U	11.0 U	0.60 U	62.0 U	0.50 U
4-Chlorophenyl-phenylether	0.60 U	1.1 U	5.9 U	56.0 U	29.0 U	11.0 U	0.60 U	65.0 U	0.60 U
4-Methylphenol	2.3 U	4.6 U	--	230 U	120 U	47.0 U	2.5 U	270 U	2.3 U
4-Nitroaniline	0.30 U	0.70 U	3.6 U	35.0 U	18.0 U	7.1 U	0.40 U	40.0 U	0.30 U
4-Nitrophenol	0.70 U	1.4 U	--	68.0 U	35.0 U	14.0 U	0.80 U	80.0 U	0.70 U
Aniline	--	--	--	--	--	--	--	--	--
Benzidine	--	--	--	--	--	--	--	--	--
bis(2-Chloroethoxy) methane	1.0 U	2.0 U	10.0 U	98.0 U	50.0 U	20.0 U	1.1 U	110 U	1.0 U
bis(2-Chloroethyl) ether	0.90 U	1.8 U	9.5 U	90.0 U	46.0 U	18.0 U	1.0 U	100 U	0.90 U
bis(2-Ethylhexyl) phthalate	1.1 U	2.2 U	12.0 U	110 U	57.0 U	22.0 U	1.2 U	130 U	1.1 U
Butylbenzylphthalate	0.60 U	1.1 U	5.8 U	55.0 U	28.0 U	11.0 U	0.60 U	64.0 U	0.60 U
Carbazole	0.20 U	0.30 U	140	16.0 U	8.4 U	3.3 U	0.20 U	19.0 U	0.20 U
Di-n-butylphthalate	0.30 U	0.60 U	3.1 U	30.0 U	15.0 U	6.0 U	0.30 U	34.0 U	0.30 U
Di-n-octylphthalate	0.40 U	0.70 U	3.8 U	36.0 U	18.0 U	7.3 U	0.40 U	42.0 U	0.40 U
Dibenzofuran	0.50 U	22.0	110	47.0 U	24.0 U	9.6 U	0.50 U	55.0 U	0.50 U
Diethylphthalate	0.30 U	0.60 U	3.0 U	28.0 U	15.0 U	5.8 U	0.30 U	33.0 U	0.30 U
Dimethylphthalate	0.50 U	1.0 U	5.2 U	49.0 U	25.0 U	10.0 U	0.50 U	57.0 U	0.50 U
Hexachlorobenzene	0.50 U	0.90 U	4.7 U	45.0 U	23.0 U	9.2 U	0.50 U	52.0 U	0.50 U
Hexachlorobutadiene	0.60 U	1.1 U	5.9 U	56.0 U	29.0 U	11.0 U	0.60 U	65.0 U	0.60 U
Hexachlorocyclopentadiene	0.40 U	0.90 U	4.5 U	43.0 U	22.0 U	8.8 U	0.50 U	50.0 U	0.40 U
Hexachloroethane	0.80 U	1.6 U	8.4 U	80.0 U	41.0 U	16.0 U	0.90 U	93.0 U	0.80 U
Isophorone	0.80 U	1.7 U	8.7 U	83.0 U	43.0 U	17.0 U	0.90 U	96.0 U	0.80 U
N-nitroso-di-n-propylamine	0.80 U	1.7 U	8.7 U	83.0 U	43.0 U	17.0 U	0.90 U	96.0 U	0.80 U

T[illegible]

GROUNDWATER SAMPLING RESULTS [µg/l]

QUANTA RESOURCES SITE, EDGEWATER, NJ

Sample ID	98311-MW20	98311-MW31	98312-MW2	98312-MW21	98314-MW1	98316-MW7	98323-MW3	98323-MW6	98324-MW11
Location	MW-20	MW-31	MW-2	MW-21	MW-1	MW-7	MW-3	MW-6	MW-11
Date Sampled	11/7/98	11/7/98	11/8/98	11/8/98	11/10/98	11/12/98	11/19/98	11/19/98	11/20/98
N-Nitrosodimethylamine	--	--	--	--	--	--	--	--	--
N-nitrosodiphenylamine/Diphenylamine	0.40 U	0.80 U	4.2 U	40.0 U	20.0 U	8.1 U	0.40 U	46.0 U	0.40 U
Nitrobenzene	1.0 U	2.0 U	10.0 U	98.0 U	50.0 U	20.0 U	1.1 U	110 U	1.0 U
Pentachlorophenol	2.8 U	5.6 U	--	280 U	140 U	57.0 U	3.1 U	320 U	2.8 U
Phenol	1.3 U	2.7 U	--	130 U	68.0 U	27.0 U	1.5 U	150 U	1.4 U
Styrene	1.0 U	1.0 U	10.0 U	25.0 U	5.0 U	10.0 U	1.0 U	100 U	1.0 U
PAHs									
Acenaphthene	5.6	32.0	130	62.0 U	190	13.0 U	0.70 U	360	0.60 U
Acenaphthylene	0.70 U	6.9	7.2 U	68.0 U	35.0 U	14.0 U	0.80 U	80.0 U	0.70 U
Anthracene	0.30 U	4.3	11.0	28.0 U	17.0	4.3 J	0.30 U	33.0 U	0.30 U
Benzo(a)anthracene	0.20 U	0.40 U	2.2 U	20.0 U	10.0 U	4.2 U	0.20 U	24.0 U	0.20 U
Benzo(a)pyrene	0.10 U	0.30 U	1.6 U	15.0 U	7.9 U	3.1 U	0.20 U	18.0 U	0.20 U
Benzo(b)fluoranthene	0.10 U	0.20 U	1.1 U	10.0 U	5.3 U	2.1 U	0.10 U	12.0 U	0.10 U
Benzo(g,h,i)perylene	0.10 U	0.20 U	1.2 U	11.0 U	5.8 U	2.3 U	0.10 U	13.0 U	0.10 U
Benzo(k)fluoranthene	0.10 U	0.30 U	1.6 U	15.0 U	7.9 U	3.1 U	0.20 U	18.0 U	0.20 U
Chrysene	0.30 U	0.50 U	2.8 U	26.0 U	14.0 U	5.4 U	0.30 U	31.0 U	0.30 U
Dibenzo(a,h)anthracene	0.20 U	0.40 U	2.2 U	21.0 U	11.0 U	4.4 U	0.20 U	25.0 U	0.20 U
Fluoranthene	0.30 U	3.6	28.0	26.0 U	14.0 U	5.4 U	0.30 U	31.0 U	0.30 U
Fluorene	3.4	28.0	70.0	52.0 U	120	11.0 U	0.60 U	61.0 U	0.50 U
Indeno(1,2,3-cd)pyrene	0.10 U	0.30 U	1.6 U	15.0 U	7.9 U	3.1 U	0.20 U	18.0 U	0.20 U
Naphthalene	6.4	260	1600	8700	4800	2300	1.1 U	8800	1.0 U
Phenanthrene	3.4	37.0	86.0	28.0 U	130	35.0	0.30 U	33.0 U	0.30 U
Pyrene	0.20 U	2.3	19.0	17.0 U	8.9 U	3.5 U	0.20 U	20.0 U	0.20 U
Total SVOCs (including PAHs)	18.8	516.1	2374	9560	5257	2499.3	ND	9900	ND
PCBs									
Aroclor-1016	--	--	--	--	--	--	--	0.30 U	--
Aroclor-1221	--	--	--	--	--	--	--	0.30 U	--
Aroclor-1232	--	--	--	--	--	--	--	0.40 U	--
Aroclor-1242	--	--	--	--	--	--	--	0.20 U	--
Aroclor-1248	--	--	--	--	--	--	--	0.30 U	--
Aroclor-1254	--	--	--	--	--	--	--	0.40 U	--
Aroclor-1260	--	--	--	--	--	--	--	0.20 U	--
Aroclor-1268	--	--	--	--	--	--	--	0.20 U	--
Total PCB	--	--	--	--	--	--	--	--	--
Metals								ND	
Aluminum	--	--	--	--	--	--	--	58.2 U	--
Antimony	--	--	--	--	--	--	--	4.6 U	--
Arsenic	4450	1320	37.8	12200	7230	2.8 U	7.6 U	2970	110
Barium	--	--	--	--	--	--	--	41.9	--
Beryllium	--	--	--	--	--	--	--	0.20 U	--
Cadmium	--	--	--	--	--	--	--	0.40 U	--
Calcium	336000	417000	74600	283000	313000	88400	378000	77300	278000

TA[illegible]

GROUNDWATER SAMPLING RESULTS [µg/l]

QUANTA RESOURCES SITE, EDGEWATER, NJ

Sample ID	98311-MW20	98311-MW31	98312-MW2	98312-MW21	98314-MW1	98316-MW7	98323-MW3	98323-MW6	98324-MW11
Location	MW-20	MW-31	MW-2	MW-21	MW-1	MW-7	MW-3	MW-6	MW-11
Date Sampled	11/7/98	11/7/98	11/8/98	11/8/98	11/10/98	11/12/98	11/19/98	11/19/98	11/20/98
Chromium	14.9	33.9	2.5	3.2	8.2	1.1 U	1.0 U	1.0 U	1.0 U
Cobalt	--	--	--	--	--	--	--	1.2	--
Copper	--	--	--	--	--	--	--	3.5 U	--
Iron	--	--	--	--	--	--	--	45700	--
Lead	58.5	14.4	2.0 U	7.6	4.0 U	2.0 U	2.5 U	2.5 U	2.5 U
Magnesium	98500	138000	49900	179000	127000	58300	49700	19300	58900
Manganese	--	--	--	--	--	--	--	1540	--
Mercury	--	--	--	--	--	--	--	0.10 U	--
Nickel	--	--	--	--	--	--	--	2.1 U	--
Potassium	21600	31300	30100	15000	19800	14000	12200	23700	20500
Selenium	--	--	--	--	--	--	--	4.8 U	--
Silver	--	--	--	--	--	--	--	1.4 U	--
Sodium	203000	181000	750000	440000	307000	506000	220000	89100	194000
Thallium	--	--	--	--	--	--	--	4.8 U	--
Vanadium	--	--	--	--	--	--	--	2.3	--
Zinc	--	--	--	--	--	--	--	4.5	--
Field Parameters									
pH	4.22	4.03	6.76	5.59	5.33	6.67	6.50	6.06	6.68
Redox	144	173	-213	62	-128	-278	-245	-75	-375
Conductivity	3.65	4.41	4.02	3.98	3.79	2.96	2.68	1165.00	2.65
Temperature	14.7	13.9	14.2	14.7	14.9	14.9	14.1	16.9	18.0

GROUNDWATER SAMPLING RESULTS [μg/l]
QUANTA RESOURCES SITE, EDGEWATER, NJ

Sample ID	98324-MW12	98324-MW29	98324-MW34	98325-MW14A	98325-MW17A	98325-MW17B	98325-MW18	98325-MW30
Location	MW-12	MW-29	MW-34	MW-14A	MW-17A	MW-17A	MW-18	MW-30
Date Sampled	11/20/98	11/20/98	11/20/98	11/21/98	11/21/98	11/21/98	11/21/98	11/21/98
VOCs								
1,1,1-Trichloroethane	0.20 U	29.0	0.20 U	0.20 U	8.8	8.8	0.20 U	0.20 U
1,1,2,2-Tetrachloroethane	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
1,1,2-Trichloroethane	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
1,1-Dichloroethane	1.1	120	0.30 U	2.3	19.0	20.0	0.30 U	2.8
1,1-Dichloroethene	0.60 U	1.5	0.60 U	0.60 U	1.4	1.3	0.60 U	0.60 U
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
1,2-Dichloropropane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
2-Butanone (MEK)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--
2-Hexanone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Bromodichloromethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Bromoform	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Bromomethane	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Carbon Disulfide	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Chlorobenzene	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Chloroethane	1.0 U	60.0	1.0 U	1.0 U	4.5	5.3	1.0 U	1.0 U
Chloroform	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Chloromethane	0.90 U	0.90 U	0.90 U	0.90 U	0.90 U	0.90 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0	1.1	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Dibromochloromethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Dichloromethane (Methylene Chloride)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	0.20 U	3.1	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Tetrachloroethene	0.10 U	0.10 U	0.10 U	0.10 U	1.9	2.0	0.10 U	0.10 U
Toluene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,2-Dichloroethene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
trans-1,3-Dichloropropene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Trichloroethene	0.40 U	0.40 U	0.40 U	0.40 U	1.4	1.5	0.40 U	0.40 U
Trichlorofluoromethane	--	--	--	--	--	--	--	--
Vinyl Chloride	0.70	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Xylenes (unspecified)	1.0 U	8.9	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total VOCs	1.8	222.5	ND	2.3	38	40	ND	2.8
SVOCs								
1,2,4-Trichlorobenzene	1.1 U	1.1 U	5.4	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U
1,2-Dichlorobenzene	0.90 U	0.90 U	0.90 U	0.90 U	1.0 U	1.0 U	0.90 U	0.90 U
1,3-Dichlorobenzene	1.0 U	1.0 U	8.4	1.0 U	1.1 U	1.1 U	1.0 U	1.0 U
1,4-Dichlorobenzene	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	1.2 U	1.1 U	1.1 U

TA[illegible]

GROUNDWATER SAMPLING RESULTS [µg/l]

QUANTA RESOURCES SITE, EDGEWATER, NJ

Sample ID	98324-MW12	98324-MW29	98324-MW34	98325-MW14A	98325-MW17A	98325-MW17B	98325-MW18	98325-MW30
Location	MW-12	MW-29	MW-34	MW-14A	MW-17A	MW-17A	MW-18	MW-30
Date Sampled	11/20/98	11/20/98	11/20/98	11/21/98	11/21/98	11/21/98	11/21/98	11/21/98
2,2'-oxybis(1-Chloropropane)	0.80 U	0.80 U	0.80 U	0.90 U	0.90 U	0.90 U	0.80 U	0.80 U
2,4,5-Trichlorophenol	2.6 U	2.6 U	2.7 U	2.7 U	2.9 U	2.9 U	2.6 U	2.6 U
2,4,6-Trichlorophenol	2.6 U	2.6 U	2.6 U	2.7 U	2.8 U	2.8 U	2.5 U	2.5 U
2,4-Dichlorophenol	2.9 U	2.9 U	2.9 U	3.0 U	3.1 U	3.1 U	2.8 U	2.8 U
2,4-Dimethylphenol	2.8 U	2.8 U	2.9 U	3.0 U	3.1 U	3.1 U	2.8 U	2.8 U
2,4-Dinitrophenol	1.3 U	1.3 U	1.3 U	1.3 U	1.4 U	1.4 U	1.2 U	1.3 U
2,4-Dinitrotoluene	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.50 U	0.50 U
2,6-Dinitrotoluene	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
2-Chloronaphthalene	1.0 U	1.0 U	1.0 U	1.0 U	1.1 U	1.1 U	1.0 U	1.0 U
2-Chlorophenol	2.8 U	2.8 U	2.9 U	2.9 U	3.1 U	3.1 U	2.8 U	2.8 U
2-Methylnaphthalene	0.90 U	0.90 U	0.90 U	0.90 U	1.0 U	1.0 U	0.90 U	0.90 U
2-Methylphenol	2.3 U	2.3 U	2.4 U	2.4 U	2.5 U	2.5 U	2.3 U	2.3 U
2-Nitroaniline	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
2-Nitrophenol	2.7 U	2.7 U	2.8 U	2.9 U	3.0 U	3.0 U	2.7 U	2.7 U
3,3'-Dichlorobenzidine	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.6 U	1.6 U
3-Nitroaniline	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
4,6-Dinitro-2-methylphenol	2.1 U	2.1 U	2.2 U	2.2 U	2.3 U	2.3 U	2.1 U	2.1 U
4-Bromophenyl-phenylether	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
4-Chloro-3-methylphenol	2.8 U	2.8 U	2.9 U	2.9 U	3.1 U	3.1 U	2.8 U	2.8 U
4-Chloroaniline	0.50 U	0.50 U	0.50 U	0.60 U	0.60 U	0.60 U	0.50 U	0.50 U
4-Chlorophenyl-phenylether	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U
4-Methylphenol	2.3 U	2.3 U	2.3 U	2.4 U	2.5 U	2.5 U	2.2 U	2.3 U
4-Nitroaniline	0.30 U	0.30 U	0.30 U	0.40 U	0.40 U	0.40 U	0.30 U	0.30 U
4-Nitrophenol	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U
Aniline	--	--	--	--	--	--	--	--
Benzidine	--	--	--	--	--	--	--	--
bis(2-Chloroethoxy) methane	1.0 U	1.0 U	1.0 U	1.0 U	1.1 U	1.1 U	1.0 U	1.0 U
bis(2-Chloroethyl) ether	0.90 U	0.90 U	0.90 U	0.90 U	1.0 U	1.0 U	0.90 U	0.90 U
bis(2-Ethylhexyl) phthalate	1.1 U	1.1 U	1.1 U	1.1 U	1.6	2.3	5.7	1.1 U
Butylbenzylphthalate	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.50 U	0.50 U
Carbazole	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Di-n-butylphthalate	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Di-n-octylphthalate	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.30 U	0.30 U
Dibenzofuran	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Diethylphthalate	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Dimethylphthalate	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Hexachlorobenzene	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.40 U	0.40 U
Hexachlorobutadiene	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U
Hexachlorocyclopentadiene	0.40 U	0.40 U	0.40 U	0.50 U	0.50 U	0.50 U	0.40 U	0.40 U
Hexachloroethane	0.80 U	0.80 U	0.80 U	0.80 U	0.90 U	0.90 U	0.80 U	0.80 U
Isophorone	0.80 U	0.80 U	0.80 U	0.90 U	0.90 U	0.90 U	0.80 U	0.80 U
N-nitroso-di-n-propylamine	0.80 U	0.80 U	0.80 U	0.90 U	0.90 U	0.90 U	0.80 U	0.80 U

TA[illegible]6-4

GROUNDWATER SAMPLING RESULTS [μg/l] = ppb

QUANTA RESOURCES SITE, EDGEWATER, NJ

Sample ID	98324-MW12	98324-MW29	98324-MW34	98325-MW14A	98325-MW17A	98325-MW17B	98325-MW18	98325-MW30
Location	MW-12	MW-29	MW-34	MW-14A	MW-17A	MW-17A	MW-18	MW-30
Date Sampled	11/20/98	11/20/98	11/20/98	11/21/98	11/21/98	11/21/98	11/21/98	11/21/98
N-Nitrosodimethylamine	--	--	--	--	--	--	--	--
N-nitrosodiphenylamine/Diphenylamine	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Nitrobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.1 U	1.1 U	1.0 U	1.0 U
Pentachlorophenol	2.8 U	2.8 U	2.8 U	2.9 U	3.0 U	3.0 U	2.7 U	2.8 U
Phenol	1.3 U	1.3 U	1.4 U	1.4 U	1.4 U	1.4 U	1.3 U	1.3 U
Styrene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PAHs								
Acenaphthene	0.60 U	0.60 U	0.60 U	0.70 U	0.70 U	0.70 U	0.60 U	0.60 U
Acenaphthylene	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U
Anthracene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Benzo(a)anthracene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Benzo(a)pyrene	0.10 U	0.10 U	0.20 U	0.20 U	0.20 U	0.20 U	0.10 U	0.10 U
Benzo(b)fluoranthene	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Benzo(g,h,i)perylene	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Benzo(k)fluoranthene	0.10 U	0.10 U	0.20 U	0.20 U	0.20 U	0.20 U	0.10 U	0.10 U
Chrysene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Dibenzo(a,h)anthracene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Fluoranthene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Fluorene	0.50 U	0.50 U	0.50 U	0.50 U	0.60 U	0.60 U	0.50 U	0.50 U
Indeno(1,2,3-cd)pyrene	0.10 U	0.10 U	0.20 U	0.20 U	0.20 U	0.20 U	0.10 U	0.10 U
Naphthalene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.90 U	1.0 U
Phenanthrene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Pyrene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Total SVOCs (including PAHs)	ND	ND	13.8	ND	1.6	2.3	5.7	ND
PCBs								
Aroclor-1016	--	--	--	--	--	--	0.30 U	--
Aroclor-1221	--	--	--	--	--	--	0.30 U	--
Aroclor-1232	--	--	--	--	--	--	0.40 U	--
Aroclor-1242	--	--	--	--	--	--	0.20 U	--
Aroclor-1248	--	--	--	--	--	--	0.30 U	--
Aroclor-1254	--	--	--	--	--	--	0.40 U	--
Aroclor-1260	--	--	--	--	--	--	0.20 U	--
Aroclor-1268	--	--	--	--	--	--	0.20 U	--
Total PCB	--	--	--	--	--	--	--	--
Metals							ND	
Aluminum	--	--	--	--	--	--	58.2 U	--
Antimony	--	--	--	--	--	--	4.6 U	--
Arsenic	274	135	257	3.8 U	37.3	34.7	3.8 U	3.8 U
Barium	--	--	--	--	--	--	224	--
Beryllium	--	--	--	--	--	--	0.20 U	--
Cadmium	--	--	--	--	--	--	0.40 U	--
Calcium	289000	276000	269000	237000	209000	204000	215000	44300

TABLE 6-4
GROUNDWATER SAMPLING RESULTS [µg/l]
QUANTA RESOURCES SITE, EDGEWATER, NJ

Sample ID	98324-MW12	98324-MW29	98324-MW34	98325-MW14A	98325-MW17A	98325-MW17B	98325-MW18	98325-MW30
Location	MW-12	MW-29	MW-34	MW-14A	MW-17A	MW-17A	MW-18	MW-30
Date Sampled	11/20/98	11/20/98	11/20/98	11/21/98	11/21/98	11/21/98	11/21/98	11/21/98
Chromium	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cobalt	--	--	--	--	--	--	1.2 U	--
Copper	--	--	--	--	--	--	3.5 U	--
Iron	--	--	--	--	--	--	9570	--
Lead	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Magnesium	64100	80900	79000	54900	68800	67400	43700	76900
Manganese	--	--	--	--	--	--	2310	--
Mercury	--	--	--	--	--	--	0.10 U	--
Nickel	--	--	--	--	--	--	2.1 U	--
Potassium	17100	25400	11600	15600	15600	15500	14900	25500
Selenium	--	--	--	--	--	--	4.8 U	--
Silver	--	--	--	--	--	--	1.4 U	--
Sodium	214000	222000	89000	165000	104000	103000	232000	761000
Thallium	--	--	--	--	--	--	4.8 U	--
Vanadium	--	--	--	--	--	--	1.9 U	--
Zinc	--	--	--	--	--	--	4.5 U	--
Field Parameters								
pH	6.25	6.70	6.29	7.14	6.58	6.58	4.64	7.02
Redox	35	-138	22	-162	-151	-151	-89	-116
Conductivity	1396.00	2.40	1231.00	3.13	1721.00	1721.00	1661.00	3510.00
Temperature	14.8	16.0	16.3	13.5	15.6	15.6	14.5	14.7

TABLE 6-4
GROUNDWATER SAMPLING RESULTS [µg/l]
QUANTA RESOURCES SITE, EDGEWATER, NJ

Sample ID	98326-MW23	98326-MW9	98327-MW101	98327-MW101A	98327-MW102	98327-MW103	98327-MW4	MW-106	MW-107
Location	MW-23	MW-9	MW-101	MW-101	MW-102	MW-103	MW-4	MW-106	MW-107
Date Sampled	11/22/98	11/22/98	11/23/98	11/23/98	11/23/98	11/23/98	11/23/98	7/8/99	7/8/99
VOCs									
1,1,1-Trichloroethane	4.4	0.20 U	1.0 U	0.40 U	40.0 U	20.0 U	2.0 U	3.0 U	30.0 U
1,1,2,2-Tetrachloroethane	0.30 U	0.30 U	1.6 U	0.70 U	66.0 U	33.0 U	3.3 U	3.2 U	32.0 U
1,1,2-Trichloroethane	0.40 U	0.40 U	2.2 U	0.90 U	86.0 U	43.0 U	4.3 U	3.5 U	35.0 U
1,1-Dichloroethane	6.0	1.0	1.6 U	0.60 U	62.0 U	31.0 U	3.1 U	2.9 U	29.0 U
1,1-Dichloroethene	0.60 U	0.60 U	2.8 U	1.1 U	110 U	55.0 U	5.5 U	4.9 U	49.0 U
1,2-Dichloroethane	0.20 U	0.20 U	1.1 U	0.40 U	44.0 U	22.0 U	2.2 U	2.9 U	29.0 U
1,2-Dichloropropane	0.50 U	0.50 U	2.3 U	0.90 U	92.0 U	46.0 U	4.6 U	1.4 U	14.0 U
2-Butanone (MEK)	5.0 U	5.0 U	25.0 U	10.0 U	1000 U	500 U	50.0 U	--	--
2-Chloroethyl vinyl ether	--	--	--	--	--	--	--	--	--
2-Hexanone	5.0 U	5.0 U	25.0 U	10.0 U	1000 U	500 U	50.0 U	2.8 U	28.0 U
4-Methyl-2-Pentanone	5.0 U	5.0 U	25.0 U	10.0 U	1000 U	500 U	50.0 U	5.6 U	56.0 U
Acetone	5.0 U	5.0 U	25.0 U	10.0 U	1000 U	500 U	50.0 U	24.0 U	240 U
Benzene	0.20 U	0.20 U	4.4	4.7	14000	2200	140	6.3	5300
Bromodichloromethane	0.20 U	0.20 U	0.90 U	0.40 U	38.0 U	19.0 U	1.9 U	2.3 U	23.0 U
Bromoform	0.30 U	0.30 U	1.5 U	0.60 U	60.0 U	30.0 U	3.0 U	3.3 U	33.0 U
Bromomethane	0.30 U	0.30 U	1.4 U	0.50 U	54.0 U	27.0 U	2.7 U	5.5 U	55.0 U
Carbon Disulfide	1.0 U	1.0 U	5.0 U	2.0 U	200 U	100 U	10.0 U	10.0 U	100 U
Carbon Tetrachloride	0.20 U	0.20 U	0.80 U	0.30 U	32.0 U	16.0 U	1.6 U	4.4 U	44.0 U
Chlorobenzene	0.10 U	7.8	0.70 U	0.30 U	28.0 U	14.0 U	1.4 U	1.9 U	19.0 U
Chloroethane	1.0 U	1.0 U	5.2 U	2.1 U	210 U	100 U	10.0 U	4.1 U	41.0 U
Chloroform	0.30	0.20 U	1.0 U	0.40 U	40.0 U	20.0 U	2.0 U	3.7 U	37.0 U
Chloromethane	0.90 U	0.90 U	4.6 U	1.9 U	190 U	93.0 U	9.3 U	4.2 U	42.0 U
cis-1,2-Dichloroethene	1.0 U	1.0 U	5.0 U	2.0 U	200 U	100 U	10.0 U	3.7 U	37.0 U
cis-1,3-Dichloropropene	0.30 U	0.30 U	1.6 U	0.70 U	66.0 U	33.0 U	3.3 U	2.7 U	27.0 U
Dibromochloromethane	0.20 U	0.20 U	1.2 U	0.50 U	46.0 U	23.0 U	2.3 U	3.2 U	32.0 U
Dichloromethane (Methylene Chloride)	1.0 U	1.0 U	5.2 U	2.1 U	210 U	100 U	10.0 U	9.9 U	99.0 U
Ethyl benzene	0.20 U	0.20 U	4.0	5.1	660	1100	420	--	--
Tetrachloroethene	0.10 U	0.10 U	0.50 U	0.20 U	20.0 U	10.0 U	1.0 U	1.4 U	14.0 U
Toluene	0.20 U	0.20 U	4.2	4.7	6000	6100	150	20.0	3800
trans-1,2-Dichloroethene	0.30 U	0.30 U	1.5 U	0.60 U	60.0 U	30.0 U	3.0 U	4.5 U	45.0 U
trans-1,3-Dichloropropene	0.30 U	0.30 U	1.6 U	0.60 U	62.0 U	31.0 U	3.1 U	3.1 U	31.0 U
Trichloroethene	0.40 U	0.40 U	2.0 U	0.80 U	82.0 U	41.0 U	4.1 U	3.1 U	31.0 U
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--
Vinyl Chloride	0.40 U	0.40 U	2.0 U	0.80 U	78.0 U	39.0 U	3.9 U	4.5 U	45.0 U
Xylenes (unspecified)	1.0 U	1.0 U	5.0 U	3.9	2400	5000	1200	--	--
Total VOCs	10.7	8.8	12.6	18.4	23920	15600	1910	26.3	9100
SVOCs									
1,2,4-Trichlorobenzene	1.2 U	1.2 U	1.1 U	1.1 U	230 U	110 U	29.0 U	6.0 U	120 U
1,2-Dichlorobenzene	1.0 U	0.90 U	0.90 U	0.90 U	180 U	90.0 U	23.0 U	6.5 U	140 U
1,3-Dichlorobenzene	1.1 U	5.7	1.0 U	1.0 U	200 U	100 U	26.0 U	7.6 U	160 U
1,4-Dichlorobenzene	1.2 U	7.4	1.1 U	1.1 U	220 U	110 U	28.0 U	7.9 U	160 U

TABLE 6-4
GROUNDWATER SAMPLING RESULTS [µg/l]
QUANTA RESOURCES SITE, EDGEWATER, NJ

Sample ID	98326-MW23	98326-MW9	98327-MW101	98327-MW101A	98327-MW102	98327-MW103	98327-MW4	MW-106	MW-107
Location	MW-23	MW-9	MW-101	MW-101	MW-102	MW-103	MW-4	MW-106	MW-107
Date Sampled	11/22/98	11/22/98	11/23/98	11/23/98	11/23/98	11/23/98	11/23/98	7/8/99	7/8/99
2,2'-oxybis(1-Chloropropane)	0.90 U	0.90 U	0.80 U	0.80 U	170 U	84.0 U	21.0 U	--	--
2,4,5-Trichlorophenol	2.8 U	2.8 U	2.6 U	2.6 U	530 U	260 U	67.0 U	20.0 U	410 U
2,4,6-Trichlorophenol	2.8 U	2.7 U	2.5 U	2.6 U	520 U	260 U	66.0 U	19.0 U	390 U
2,4-Dichlorophenol	3.1 U	3.0 U	2.8 U	2.9 U	580 U	290 U	73.0 U	17.0 U	360 U
2,4-Dimethylphenol	3.1 U	3.0 U	9.7	10.0	19000	2500	75.0	18.0 U	2200
2,4-Dinitrophenol	1.4 U	1.3 U	1.3 U	1.3 U	260 U	130 U	32.0 U	20.0 U	400 U
2,4-Dinitrotoluene	0.60 U	0.60 U	0.50 U	0.60 U	110 U	56.0 U	14.0 U	4.4 U	91.0 U
2,6-Dinitrotoluene	0.40 U	0.40 U	0.40 U	0.40 U	80.0 U	40.0 U	10.0 U	3.8 U	78.0 U
2-Chloronaphthalene	1.1 U	1.0 U	1.0 U	1.0 U	200 U	100 U	26.0 U	2.9 U	60.0 U
2-Chlorophenol	3.0 U	3.0 U	2.8 U	2.8 U	570 U	280 U	72.0 U	19.0 U	380 U
2-Methylnaphthalene	1.0 U	0.90 U	41.0	40.0	4200	1400	170	320	1000
2-Methylphenol	2.5 U	2.4 U	8.1	7.8	16000	980	59.0 U	20.0 U	420 U
2-Nitroaniline	0.50 U	0.50 U	0.50 U	0.50 U	93.0 U	46.0 U	12.0 U	3.2 U	66.0 U
2-Nitrophenol	3.0 U	2.9 U	2.7 U	2.7 U	550 U	280 U	70.0 U	20.0 U	420 U
3,3'-Dichlorobenzidine	1.8 U	1.8 U	1.6 U	1.7 U	340 U	170 U	43.0 U	19.0 U	380 U
3-Nitroaniline	0.50 U	0.50 U	0.50 U	0.50 U	95.0 U	47.0 U	12.0 U	9.5 U	200 U
4,6-Dinitro-2-methylphenol	2.3 U	2.2 U	2.1 U	2.1 U	430 U	210 U	54.0 U	27.0 U	550 U
4-Bromophenyl-phenylether	0.40 U	0.40 U	0.40 U	0.40 U	80.0 U	40.0 U	10.0 U	3.6 U	74.0 U
4-Chloro-3-methylphenol	3.0 U	3.0 U	2.8 U	2.8 U	570 U	280 U	72.0 U	20.0 U	410 U
4-Chloroaniline	0.60 U	0.60 U	0.50 U	0.50 U	110 U	54.0 U	14.0 U	4.2 U	88.0 U
4-Chlorophenyl-phenylether	0.60 U	0.60 U	0.60 U	0.60 U	110 U	57.0 U	14.0 U	4.5 U	92.0 U
4-Methylphenol	2.5 U	2.4 U	16.0	16.0	32000	1200	58.0 U	20.0 U	430
4-Nitroaniline	0.40 U	0.40 U	0.30 U	0.30 U	70.0 U	35.0 U	8.8 U	4.1 U	86.0 U
4-Nitrophenol	0.70 U	0.70 U	0.70 U	0.70 U	140 U	69.0 U	17.0 U	15.0 U	310 U
Aniline	--	--	--	--	--	--	--	--	--
Benzidine	--	--	--	--	--	--	--	--	--
bis(2-Chloroethoxy) methane	1.0 U	1.0 U	1.0 U	1.0 U	200 U	99.0 U	25.0 U	--	--
bis(2-Chloroethyl) ether	1.0 U	0.90 U	0.90 U	0.90 U	180 U	91.0 U	23.0 U	--	--
bis(2-Ethylhexyl) phthalate	1.2 U	1.2 U	1.1 U	1.1 U	220 U	110 U	28.0 U	--	--
Butylbenzylphthalate	0.60 U	0.60 U	1.2	1.1	110 U	56.0 U	14.0 U	2.8 U	57.0 U
Carbazole	0.20 U	0.20 U	58.0	56.0	33.0 U	16.0 U	4.2 U	16.0	120
Di-n-butylphthalate	0.30 U	0.30 U	0.30 U	0.30 U	60.0 U	30.0 U	7.6 U	3.4 U	69.0 U
Di-n-octylphthalate	0.40 U	0.40 U	0.30 U	0.40 U	72.0 U	36.0 U	9.1 U	2.3 U	47.0 U
Dibenzofuran	0.50 U	0.50 U	24.0	24.0	95.0 U	47.0 U	12.0 U	41.0	130
Diethylphthalate	0.30 U	0.30 U	0.30 U	0.30 U	58.0 U	29.0 U	7.3 U	2.6 U	54.0 U
Dimethylphthalate	0.50 U	0.50 U	0.50 U	0.50 U	99.0 U	49.0 U	12.0 U	2.6 U	54.0 U
Hexachlorobenzene	0.50 U	0.50 U	0.40 U	0.50 U	91.0 U	45.0 U	11.0 U	3.4 U	70.0 U
Hexachlorobutadiene	0.60 U	0.60 U	0.60 U	0.60 U	110 U	57.0 U	14.0 U	9.7 U	200 U
Hexachlorocyclopentadiene	0.50 U	0.50 U	0.40 U	0.40 U	86.0 U	43.0 U	11.0 U	6.3 U	130 U
Hexachloroethane	0.90 U	0.80 U	0.80 U	0.80 U	160 U	80.0 U	20.0 U	12.0 U	240 U
Isophorone	0.90 U	0.90 U	0.80 U	0.80 U	170 U	84.0 U	21.0 U	2.6 U	53.0 U
N-nitroso-di-n-propylamine	0.90 U	0.90 U	0.80 U	0.80 U	170 U	84.0 U	21.0 U	6.3 U	130 U

TABLE 6-4
GROUNDWATER SAMPLING RESULTS [µg/l]
QUANTA RESOURCES SITE, EDGEWATER, NJ

Sample ID	98326-MW23	98326-MW9	98327-MW101	98327-MW101A	98327-MW102	98327-MW103	98327-MW4	MW-106	MW-107
Location	MW-23	MW-9	MW-101	MW-101	MW-102	MW-103	MW-4	MW-106	MW-107
Date Sampled	11/22/98	11/22/98	11/23/98	11/23/98	11/23/98	11/23/98	11/23/98	7/8/99	7/8/99
N-Nitrosodimethylamine	--	--	--	--	--	--	--	--	--
N-nitrosodiphenylamine/Diphenylamine	0.40 U	0.40 U	0.40 U	0.40 U	80.0 U	40.0 U	10.0 U	--	--
Nitrobenzene	1.0 U	1.0 U	1.0 U	1.0 U	200 U	99.0 U	25.0 U	2.6 U	53.0 U
Pentachlorophenol	3.0 U	2.9 U	2.8 U	2.8 U	560 U	280 U	71.0 U	10.0 U	220 U
Phenol	1.4 U	1.4 U	3.7	3.9	12000	180	34.0 U	10.0 U	210 U
Styrene	1.0 U	1.0 U	5.0 U	2.0 U	860	1200	10.0 U	3.4 U	34.0 U
PAHs									
Acenaphthene	0.70 U	0.70 U	41.0	42.0	870	63.0 U	16.0 U	100	230
Acenaphthylene	0.70 U	0.70 U	2.4	2.5	520	69.0 U	17.0 U	4.8 U	100 U
Anthracene	0.30 U	0.30 U	10.0	10.0	510	29.0 U	7.3 U	20.0	65.0 U
Benzo(a)anthracene	0.20 U	0.20 U	0.20 U	0.20 U	350	21.0 U	5.2 U	7.8	60.0 U
Benzo(a)pyrene	0.20 U	0.20 U	0.10 U	0.10 U	200	15.0 U	3.9 U	3.4	68.0 U
Benzo(b)fluoranthene	0.10 U	0.10 U	0.10 U	0.10 U	200	10.0 U	2.6 U	4.0	60.0 U
Benzo(g,h,i)perylene	0.10 U	0.10 U	0.10 U	0.10 U	23.0 U	11.0 U	2.9 U	4.5 U	93.0 U
Benzo(k)fluoranthene	0.20 U	0.20 U	0.10 U	0.10 U	31.0 U	15.0 U	3.9 U	3.6 U	74.0 U
Chrysene	0.30 U	0.30 U	0.30 U	0.30 U	260	27.0 U	6.8 U	5.8	80.0 U
Dibenzo(a,h)anthracene	0.20 U	0.20 U	0.20 U	0.20 U	43.0 U	22.0 U	5.5 U	--	--
Fluoranthene	0.30 U	0.30 U	8.5	8.2	950	27.0 U	6.8 U	24.0	67.0 U
Fluorene	0.60 U	0.60 U	26.0	26.0	940	52.0 U	13.0 U	72.0	92.0
Indeno(1,2,3-cd)pyrene	0.20 U	0.20 U	0.10 U	0.10 U	31.0 U	15.0 U	3.9 U	4.0 U	84.0 U
Naphthalene	1.0 U	1.0 U	160	160	23000	16000	4200	1200	11000
Phenanthrene	0.30 U	0.30 U	57.0	56.0	2300	29.0 U	44.0	110	70.0
Pyrene	0.20 U	0.20 U	6.4	6.0	830	18.0 U	4.4 U	21.0	72.0 U
Total SVOCs (including PAHs)	ND	13.1	473	469.5	114130	22260	4489	1945	15272
PCBs									
Aroclor-1016	--	0.30 U	--	--	2.1 U	--	--	--	--
Aroclor-1221	--	0.30 U	--	--	0.30 U	--	--	--	--
Aroclor-1232	--	0.40 U	--	--	2.1 U	--	--	--	--
Aroclor-1242	--	0.20 U	--	--	2.1 U	--	--	--	--
Aroclor-1248	--	0.30 U	--	--	2.1 U	--	--	--	--
Aroclor-1254	--	0.40 U	--	--	4.6 U	--	--	--	--
Aroclor-1260	--	0.20 U	--	--	4.6 U	--	--	--	--
Aroclor-1268	--	0.20 U	--	--	0.20 U	--	--	--	--
Total PCB	--	--	--	--	--	--	--	--	--
Metals		ND			ND				
Aluminum	--	58.2 U	--	--	6950	--	--	--	--
Antimony	--	4.6 U	--	--	8.8 U	--	--	--	--
Arsenic	11.2 U	3.8 U	13.4	9.1	440	2280	776	13.7	20900
Barium	--	91.8	--	--	142	--	--	--	--
Beryllium	--	0.20 U	--	--	0.40 U	--	--	--	--
Cadmium	--	0.40 U	--	--	0.80 U	--	--	--	--
Calcium	395000	337000	166000	174000	211000	203000	199000	--	--

TABLE 6-4
GROUNDWATER SAMPLING RESULTS [µg/l]
QUANTA RESOURCES SITE, EDGEWATER, NJ

Sample ID	98326-MW23	98326-MW9	98327-MW101	98327-MW101A	98327-MW102	98327-MW103	98327-MW4	MW-106	MW-107
Location	MW-23	MW-9	MW-101	MW-101	MW-102	MW-103	MW-4	MW-106	MW-107
Date Sampled	11/22/98	11/22/98	11/23/98	11/23/98	11/23/98	11/23/98	11/23/98	7/8/99	7/8/99
Chromium	4.4 U	1.0 U	2.0 U	2.0 U	2.2 U	3.9	2.0 U	25.2	4.4 U
Cobalt	--	1.4	--	--	2.6 U	--	--	--	--
Copper	--	3.5 U	--	--	5.8 U	--	--	--	--
Iron	--	103	--	--	406	--	--	--	--
Lead	8.0 U	2.5 U	5.0 U	5.0 U	4.0 U	4.0 U	5.0 U	34.8	8.4 U
Magnesium	146000	92900	18700	19500	7940	67400	12800	--	--
Manganese	--	518	--	--	65.9	--	--	--	--
Mercury	--	0.10 U	--	--	0.10 U	--	--	--	--
Nickel	--	2.1 U	--	--	6.8	--	--	--	--
Potassium	43200	20500	12500	13000	121000	7470	6370	--	--
Selenium	--	4.8 U	--	--	8.4 U	--	--	--	--
Silver	--	1.4 U	--	--	2.8 U	--	--	--	--
Sodium	808000	188000	76400	79700	261000	195000	32900	--	--
Thallium	--	4.8 U	--	--	9.0 U	--	--	--	--
Vanadium	--	1.9 U	--	--	52.7	--	--	--	--
Zinc	--	4.5 U	--	--	8.8	--	--	--	--
Field Parameters									
pH	6.31	6.56	6.59	6.59	12.04	5.71	7.18	6.79	4.79
Redox	-42	-73	-119	-119	-298	-8	-133	-171	80
Conductivity	2730.00	1214.00	1264.00	1264.00	1575.00	1010.00	1059.00	--	--
Temperature	17.3	15.9	16.8	16.8	15.8	13.3	17.6	30.3	30.3

TABLE 6-4
GROUNDWATER SAMPLING RESULTS [µg/l]
QUANTA RESOURCES SITE, EDGEWATER, NJ

Sample ID	MW-108	MW-108D	MW-109	MW-110
Location	MW-108	MW-108	MW-109	MW-110
Date Sampled	7/9/99	7/9/99	7/8/99	7/9/99
VOCs				
1,1,1-Trichloroethane	0.30 U	0.30 U	0.30 U	1.5 U
1,1,2,2-Tetrachloroethane	0.30 U	0.30 U	0.30 U	1.6 U
1,1,2-Trichloroethane	0.30 U	0.30 U	0.30 U	1.8 U
1,1-Dichloroethane	0.30 U	0.30 U	0.30 U	1.4 U
1,1-Dichloroethene	0.50 U	0.50 U	0.50 U	2.4 U
1,2-Dichloroethane	0.30 U	0.30 U	0.30 U	1.4 U
1,2-Dichloropropane	0.10 U	0.10 U	0.10 U	0.70 U
2-Butanone (MEK)	--	--	--	--
2-Chloroethyl vinyl ether	--	--	--	--
2-Hexanone	0.30 U	0.30 U	0.30 U	1.4 U
4-Methyl-2-Pentanone	0.60 U	0.60 U	0.60 U	2.8 U
Acetone	8.6	6.7	2.4 U	12.0 U
Benzene	3.1	2.9	5.4	74.0
Bromodichloromethane	0.20 U	0.20 U	0.20 U	1.2 U
Bromoform	0.30 U	0.30 U	0.30 U	1.6 U
Bromomethane	0.60 U	0.60 U	0.60 U	2.8 U
Carbon Disulfide	1.0 U	1.0 U	1.0 U	5.0 U
Carbon Tetrachloride	0.40 U	0.40 U	0.40 U	2.2 U
Chlorobenzene	1.5	1.4	0.20 U	0.90 U
Chloroethane	0.40 U	0.40 U	0.40 U	2.0 U
Chloroform	0.40 U	0.40 U	0.40 U	1.8 U
Chloromethane	0.40 U	0.40 U	0.40 U	2.1 U
cis-1,2-Dichloroethene	0.40 U	0.40 U	0.40 U	1.8 U
cis-1,3-Dichloropropene	0.30 U	0.30 U	0.30 U	1.4 U
Dibromochloromethane	0.30 U	0.30 U	0.30 U	1.6 U
Dichloromethane (Methylene Chloride)	1.0 U	1.0 U	1.0 U	5.0 U
Ethyl benzene	--	--	--	--
Tetrachloroethene	0.10 U	0.10 U	0.10 U	0.70 U
Toluene	4.6	4.6	3.5	1.5
trans-1,2-Dichloroethene	0.50 U	0.50 U	0.50 U	2.2 U
trans-1,3-Dichloropropene	0.30 U	0.30 U	0.30 U	1.6 U
Trichloroethene	0.30 U	0.30 U	0.30 U	1.6 U
Trichlorofluoromethane	--	--	--	--
Vinyl Chloride	0.50 U	0.50 U	0.50 U	2.2 U
Xylenes (unspecified)	--	--	--	--
Total VOCs	17.8	15.6	8.9	75.5
SVOCs				
1,2,4-Trichlorobenzene	1.1 U	1.2 U	1.2 U	2.4 U
1,2-Dichlorobenzene	1.2 U	1.3 U	1.4 U	2.7 U
1,3-Dichlorobenzene	1.4 U	1.5 U	1.6 U	3.1 U
1,4-Dichlorobenzene	1.5 U	1.6 U	1.6 U	3.2 U

TABLE 6-4
GROUNDWATER SAMPLING RESULTS [µg/l]
QUANTA RESOURCES SITE, EDGEWATER, NJ

Sample ID	MW-108	MW-108D	MW-109	MW-110
Location	MW-108	MW-108	MW-109	MW-110
Date Sampled	7/9/99	7/9/99	7/8/99	7/9/99
2,2'-oxybis(1-Chloropropane)	--	--	--	--
2,4,5-Trichlorophenol	3.8 U	4.0 U	4.2 U	8.2 U
2,4,6-Trichlorophenol	3.6 U	3.8 U	4.0 U	7.7 U
2,4-Dichlorophenol	3.2 U	3.5 U	3.6 U	7.0 U
2,4-Dimethylphenol	3.3 U	3.5 U	3.7 U	7.2 U
2,4-Dinitrophenol	3.7 U	4.0 U	4.1 U	8.0 U
2,4-Dinitrotoluene	0.80 U	0.90 U	0.90 U	1.8 U
2,6-Dinitrotoluene	0.70 U	0.80 U	0.80 U	1.5 U
2-Chloronaphthalene	0.60 U	0.60 U	0.60 U	1.2 U
2-Chlorophenol	3.5 U	3.8 U	3.9 U	7.6 U
2-Methylnaphthalene	1.0	1.1	30.0	9.4
2-Methylphenol	3.9 U	4.2 U	4.3 U	8.4 U
2-Nitroaniline	0.60 U	0.60 U	0.70 U	1.3 U
2-Nitrophenol	3.9 U	4.2 U	4.3 U	8.4 U
3,3'-Dichlorobenzidine	3.5 U	3.8 U	3.9 U	7.6 U
3-Nitroaniline	1.8 U	1.9 U	2.0 U	3.9 U
4,6-Dinitro-2-methylphenol	5.0 U	5.4 U	5.6 U	11.0 U
4-Bromophenyl-phenylether	0.70 U	0.70 U	0.70 U	1.4 U
4-Chloro-3-methylphenol	3.8 U	4.0 U	4.2 U	8.2 U
4-Chloroaniline	0.80 U	0.90 U	0.90 U	1.7 U
4-Chlorophenyl-phenylether	0.80 U	0.90 U	0.90 U	1.8 U
4-Methylphenol	3.8 U	4.1 U	5.7	8.2 U
4-Nitroaniline	0.80 U	0.80 U	0.90 U	1.7 U
4-Nitrophenol	2.8 U	3.1 U	3.2 U	6.2 U
Aniline	--	--	--	--
Benzidine	--	--	--	--
bis(2-Chloroethoxy) methane	--	--	--	--
bis(2-Chloroethyl) ether	--	--	--	--
bis(2-Ethylhexyl) phthalate	--	--	--	--
Butylbenzylphthalate	0.50 U	0.60 U	0.60 U	1.1 U
Carbazole	0.80 U	0.90 U	11.0	88.0
Di-n-butylphthalate	0.60 U	0.70 U	0.70 U	1.4 U
Di-n-octylphthalate	0.40 U	0.50 U	0.50 U	0.90 U
Dibenzofuran	0.70 U	0.80 U	9.5	78.0
Diethylphthalate	0.50 U	0.50 U	0.50 U	1.1 U
Dimethylphthalate	0.50 U	0.50 U	0.50 U	1.1 U
Hexachlorobenzene	0.60 U	0.70 U	0.70 U	1.4 U
Hexachlorobutadiene	1.8 U	2.0 U	2.0 U	4.0 U
Hexachlorocyclopentadiene	1.2 U	1.3 U	1.3 U	2.6 U
Hexachloroethane	2.2 U	2.3 U	2.4 U	4.7 U
Isophorone	0.50 U	0.50 U	0.50 U	1.0 U
N-nitroso-di-n-propylamine	1.2 U	1.3 U	1.3 U	2.6 U

TA[illegible]6-4

GROUNDWATER SAMPLING RESULTS [µg/l]

QUANTA RESOURCES SITE, EDGEWATER, NJ

Sample ID	MW-108	MW-108D	MW-109	MW-110
Location	MW-108	MW-108	MW-109	MW-110
Date Sampled	7/9/99	7/9/99	7/8/99	7/9/99
N-Nitrosodimethylamine	--	--	--	--
N-nitrosodiphenylamine/Diphenylamine	--	--	--	--
Nitrobenzene	0.50 U	0.50 U	0.50 U	1.0 U
Pentachlorophenol	2.0 U	2.1 U	2.2 U	4.3 U
Phenol	2.0 U	2.1 U	2.2 U	4.2 U
Styrene	0.30 U	0.30 U	0.30 U	1.7 U
PAHs				
Acenaphthene	10.0	11.0	29.0	150
Acenaphthylene	0.90 U	1.0 U	1.0 U	2.0 U
Anthracene	0.60	0.60 U	5.4	3.5
Benzo(a)anthracene	0.60 U	0.60 U	0.90	1.2 U
Benzo(a)pyrene	0.60 U	0.70 U	0.70 U	1.3 U
Benzo(b)fluoranthene	0.60 U	0.60 U	0.60 U	1.2 U
Benzo(g,h,i)perylene	0.80 U	0.90 U	0.90 U	1.8 U
Benzo(k)fluoranthene	0.70 U	0.70 U	0.70 U	1.4 U
Chrysene	0.70 U	0.80 U	0.80 U	1.6 U
Dibenzo(a,h)anthracene	--	--	--	--
Fluoranthene	0.70	0.70	5.2	2.2
Fluorene	2.3	2.4	18.0	14.0
Indeno(1,2,3-cd)pyrene	0.80 U	0.80 U	0.80 U	1.6 U
Naphthalene	12.0	11.0	160	250
Phenanthrene	2.4	2.4	28.0	32.0
Pyrene	0.70 U	0.70 U	3.9	1.4 U
Total SVOCs (including PAHs)	29	28.6	306.6	627.1
PCBs				
Aroclor-1016	--	--	--	--
Aroclor-1221	--	--	--	--
Aroclor-1232	--	--	--	--
Aroclor-1242	--	--	--	--
Aroclor-1248	--	--	--	--
Aroclor-1254	--	--	--	--
Aroclor-1260	--	--	--	--
Aroclor-1268	--	--	--	--
Total PCB	--	--	--	--
Metals				
Aluminum	--	--	--	--
Antimony	--	--	--	--
Arsenic	3.6 U	3.6 U	44.9	491
Barium	--	--	--	--
Beryllium	--	--	--	--
Cadmium	--	--	--	--
Calcium	--	--	--	--

TABLE 6-4
GROUNDWATER SAMPLING RESULTS [µg/l]
QUANTA RESOURCES SITE, EDGEWATER, NJ

Sample ID	MW-108	MW-108D	MW-109	MW-110
Location	MW-108	MW-108	MW-109	MW-110
Date Sampled	7/9/99	7/9/99	7/8/99	7/9/99
Chromium	2.6	1.1 U	2.2 U	1.1 U
Cobalt	--	--	--	--
Copper	--	--	--	--
Iron	--	--	--	--
Lead	6.7	3.5	4.2 U	2.8
Magnesium	--	--	--	--
Manganese	--	--	--	--
Mercury	--	--	--	--
Nickel	--	--	--	--
Potassium	--	--	--	--
Selenium	--	--	--	--
Silver	--	--	--	--
Sodium	--	--	--	--
Thallium	--	--	--	--
Vanadium	--	--	--	--
Zinc	--	--	--	--
Field Parameters				
pH	6.80	6.80	5.68	6.5
Redox	103	103	66	-14
Conductivity	41.2	41.2	--	--
Temperature	30.1	30.1	30.3	30.1

-- indicates the constituent was not analyzed in the sample
ND indicates the constituent was reported as non detect in the sample without information about the reporting limit being provided
U indicates the constituent was reported as non detect in the sample; the value presented represents the reporting limit
J indicates the concentration was estimated in the sample

SITE LOCATION

SOURCE: CENTRAL PARK NY-NJ AND WEEHAWKEN NJ-NY USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLES, DATED 1979.

1000 0 1000 2000 Feet

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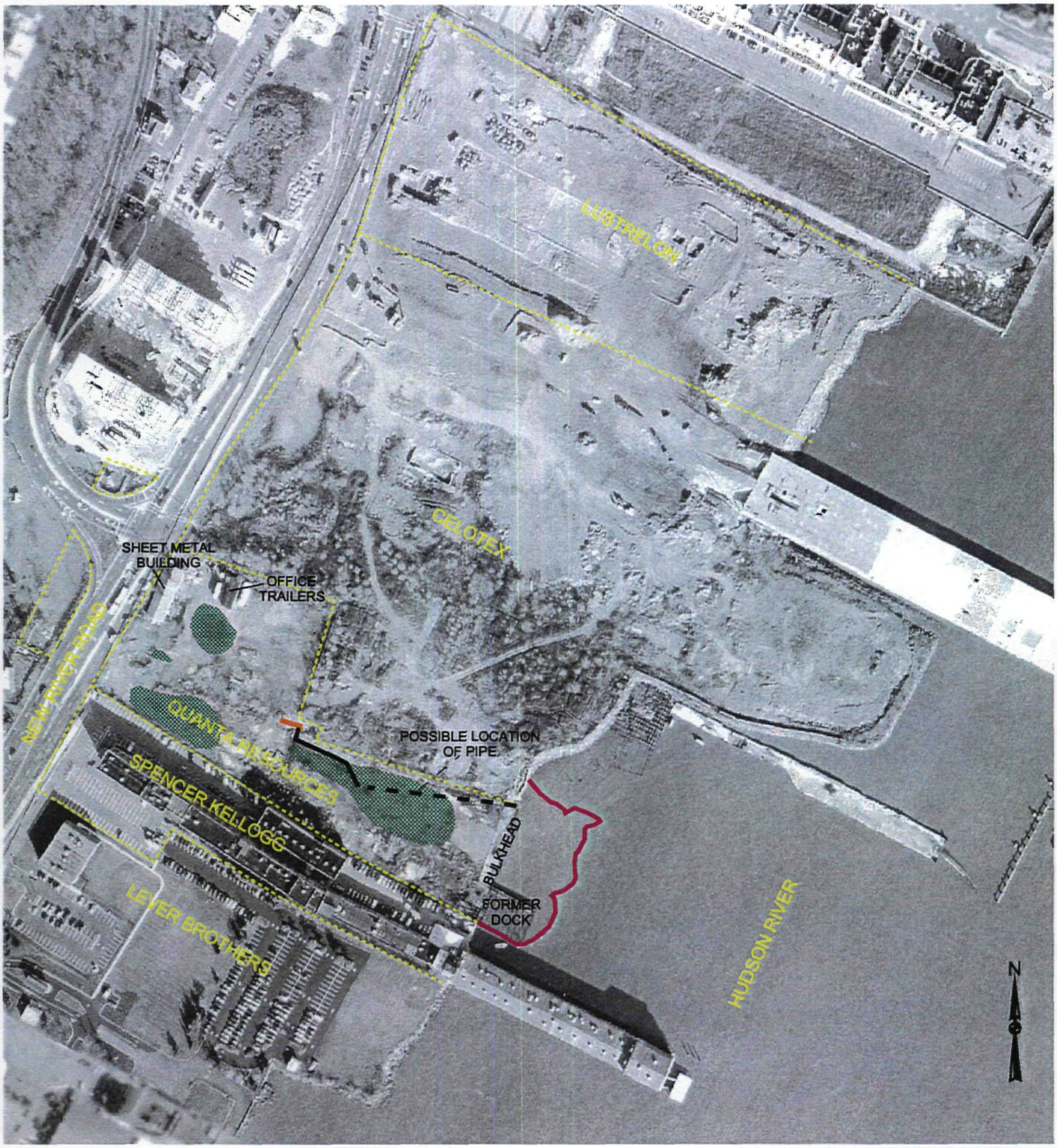
FIGURE NO.	2-1
PROJECT NO.	GL0520
DOCUMENT NO.	GA000168
FILE NO.	FIGURE1.APR

N:\QUANTA\RS\REVSION_1\FIGURES\FIGURE1.APR

CURRENT SITE FEATURES



AREIAL PHOTOGRAPH DATED 1998

LEGEND

- Absorbent Boom
- Approximate Property Line
- Separator Drain Pipe (dashed where inferred or suspected)
- Area Containing Surface Tar
- Former Oil / Water Separator

150 0 150 300 Feet

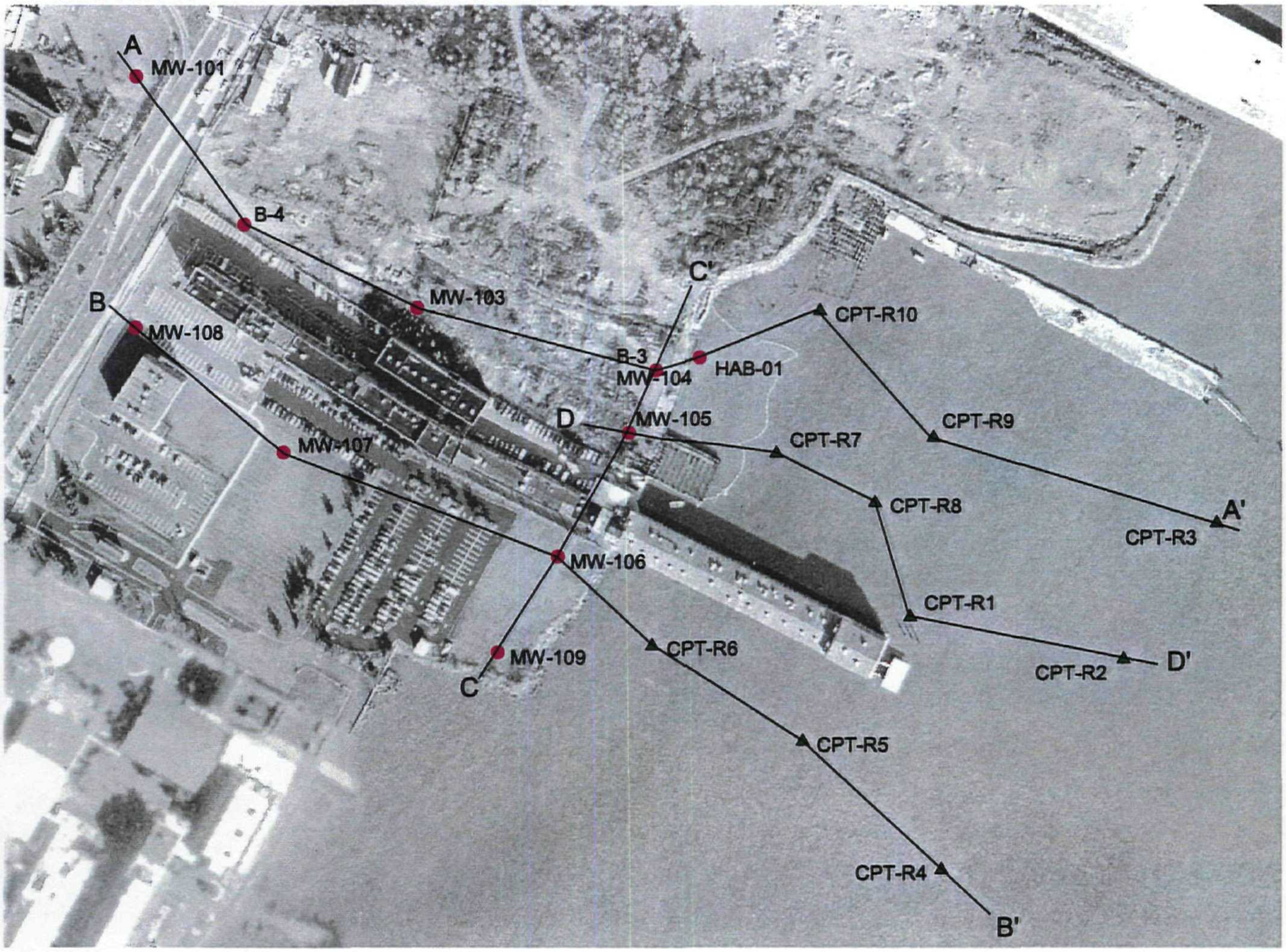
GEOSYNTEC CONSULTANTS
ATLANTA, GEORGIA

FIGURE NO.	2-5
PROJECT NO.	GL0520
DOCUMENT NO.	GA000168
FILE NO.	SITEFEAT.APR

N:\QUANTA\RSI\REVSION_1\FIGURES\SITEFEAT.APR

CROSS-SECTION LOCATIONS

N



LEGEND

▲ CPT/ROST Location
● Soil Boring or Well Location

150 0 150 300 Feet

GeoSyntec Consultants
ATLANTA, GEORGIA

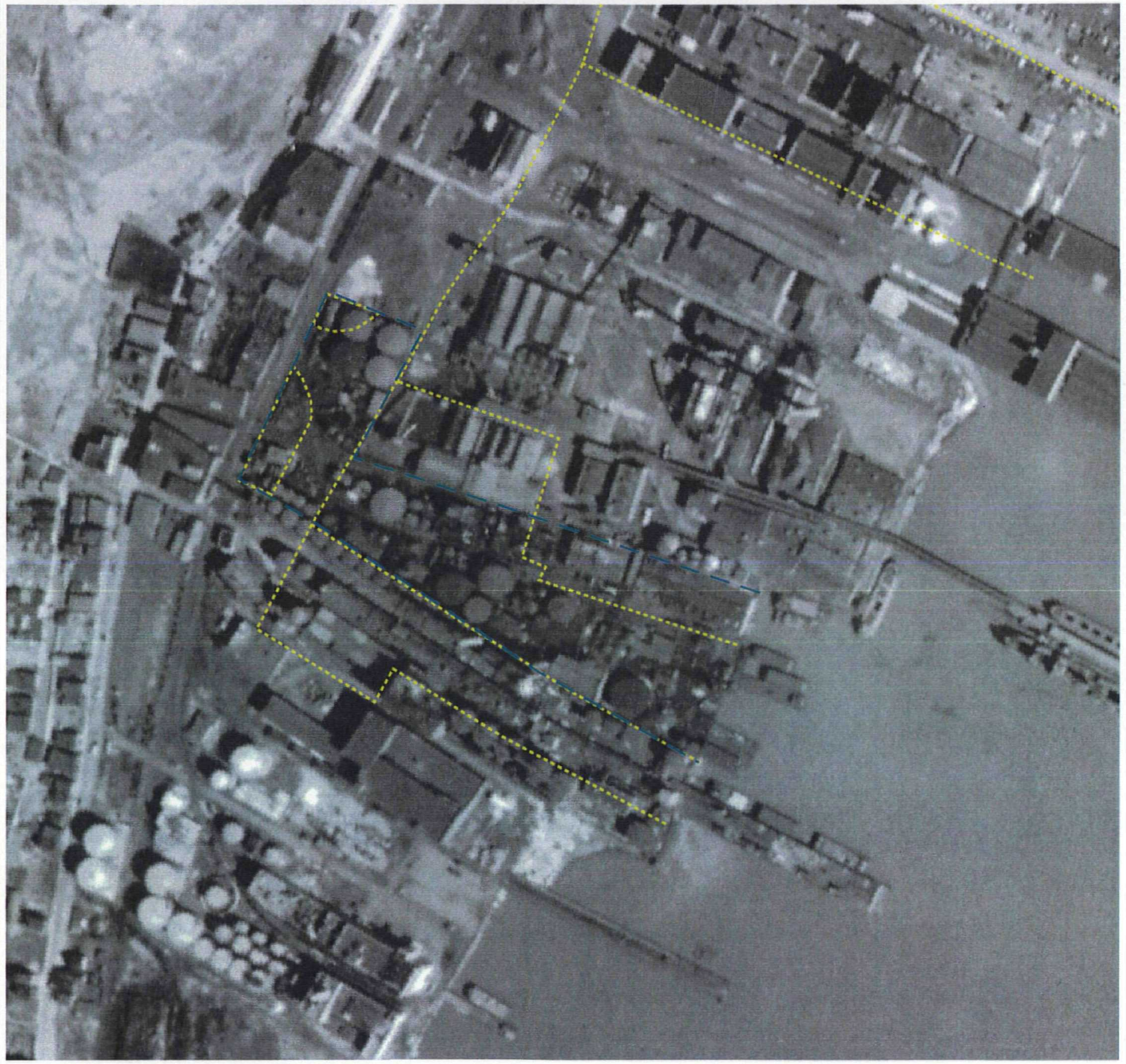
FIGURE NO.	4-3
PROJECT NO.	GL0520
DOCUMENT NO.	GA000168
FILE NO.	CROSS_X.APR

N:\QUANTA\RSI\REVSION_1\FIGURES\CROSS_X.APR

AERIAL PHOTOS (1940; 1980) OF PAST INDUSTRIAL OPERATIONS

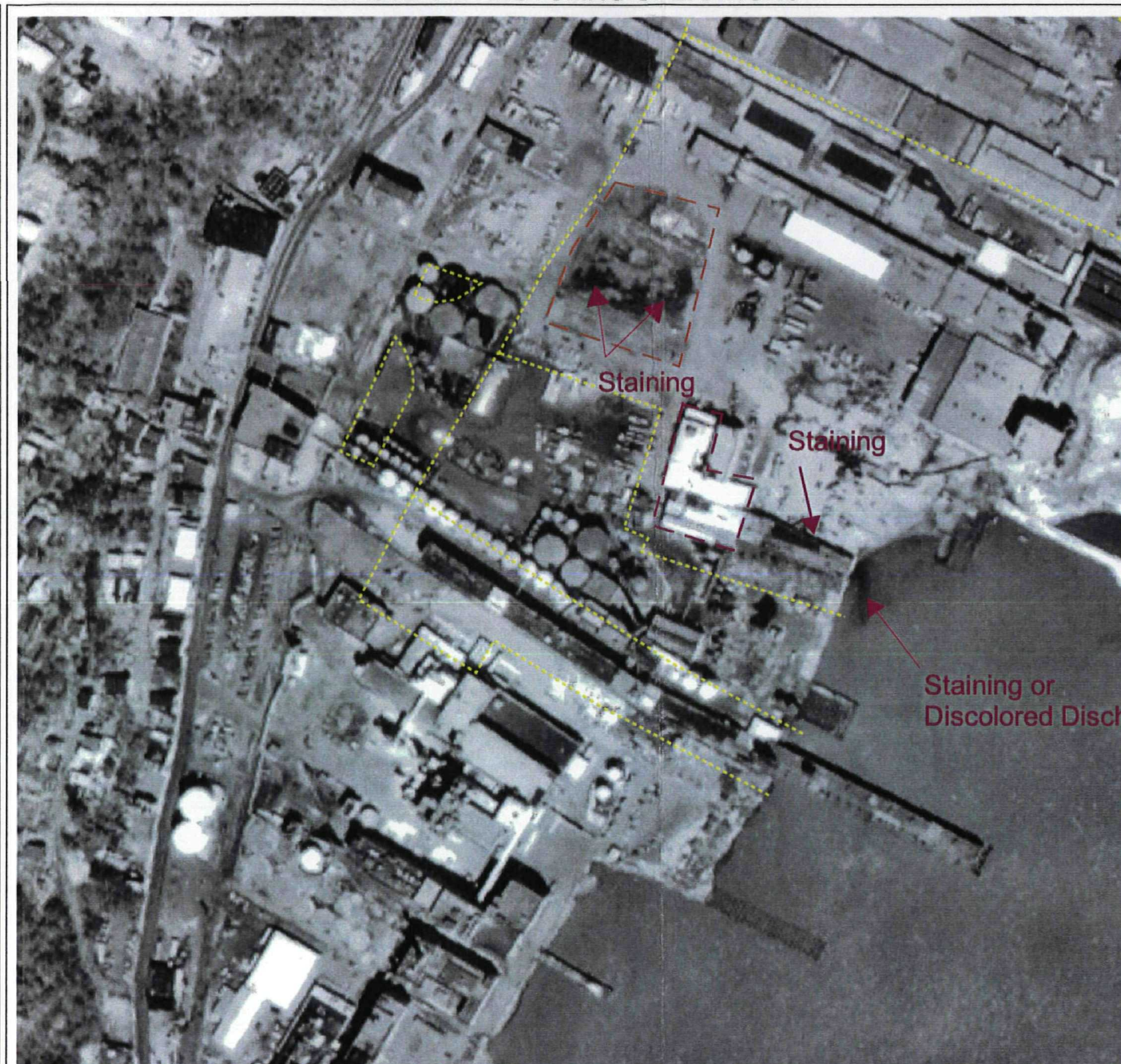
N

ROOFING PLANT OPERATIONS



1940 AERIAL PHOTOGRAPH

WASTE OIL RECYCLING OPERATIONS



1980 AERIAL PHOTOGRAPH

150 0 150 300 Feet

LEGEND

- Approximate Limits of Coal Tar Roofing Plant
- Approximate Current Property Boundaries
- Approximate Location of Metals Reclaiming / Finishing Plant
- Approximate Location of Vacuum Truck Company

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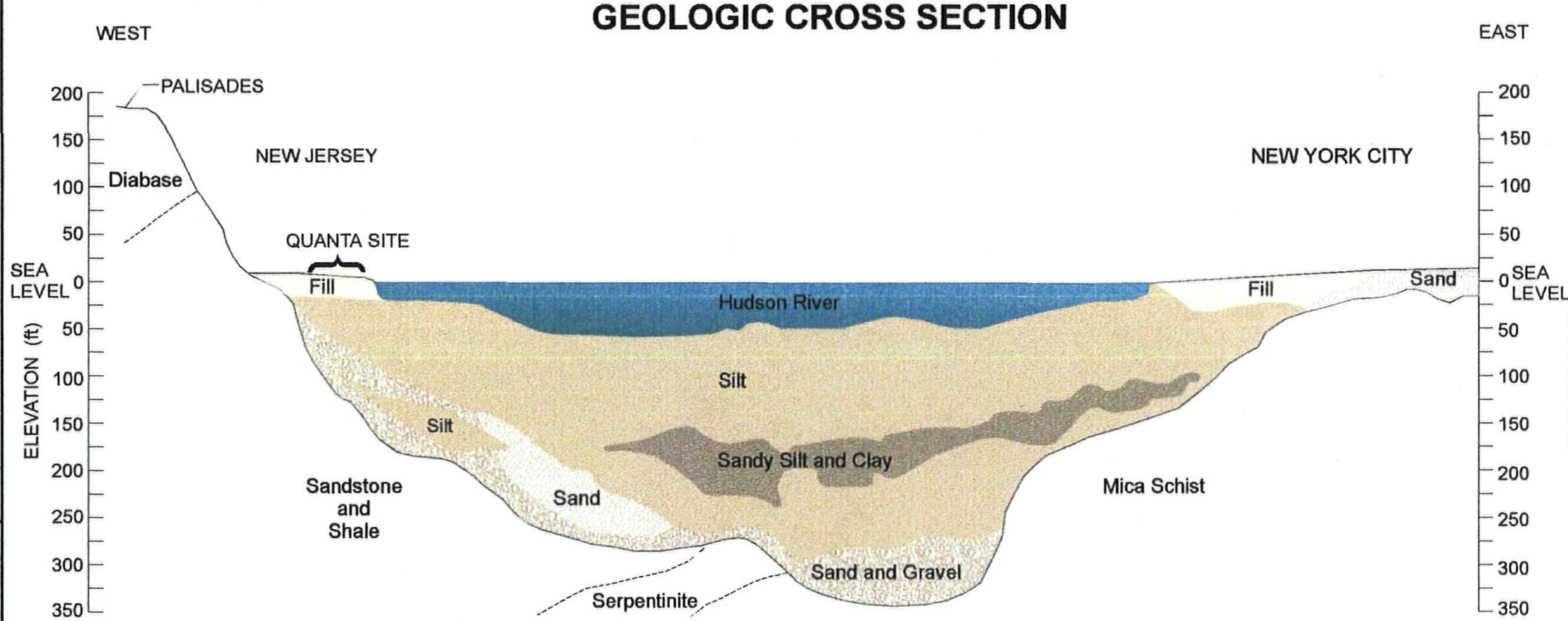
ATLANTA, GEORGIA

DATE:	16 MARCH 2000	SCALE:	1"= 300 FEET
PROJECT NO.	GL0520	FIGURE NO.	2-3
DOCUMENT NO.	GA000168	FILE NO.	INDUSTRIAL.APR

GEOLOGIC CROSS SECTION



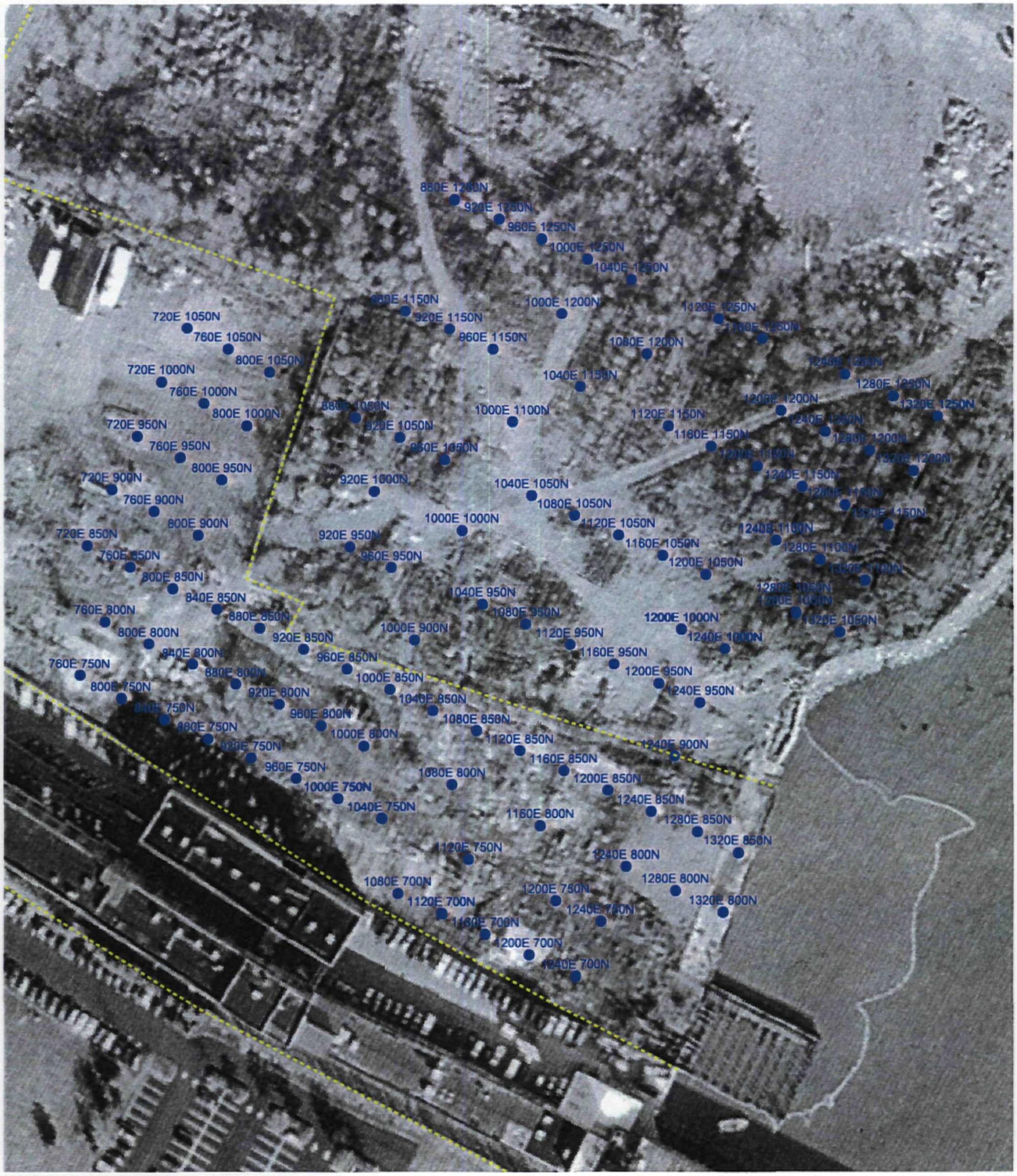
SOURCE: MODIFIED FROM USGS, ENGINEERING GEOLOGY OF N.E. CORRIDOR WASHINGTON, D.C. TO BOSTON MASSACHUSETTS, 1967

GeoSyntec Consultants

ATLANTA, GEORGIA

FIGURE NO.	2 - 2
PROJECT NO.	GL0520-105
DOCUMENT NO.	GA000168
FILE NO.	FIGS.cdr

LOCATION OF GEOPHYSICAL SURVEY



AREIAL PHOTOGRAPH DATED 1998

100 0 100 Feet

N

LEGEND

Approximate Property Line
Grid Location

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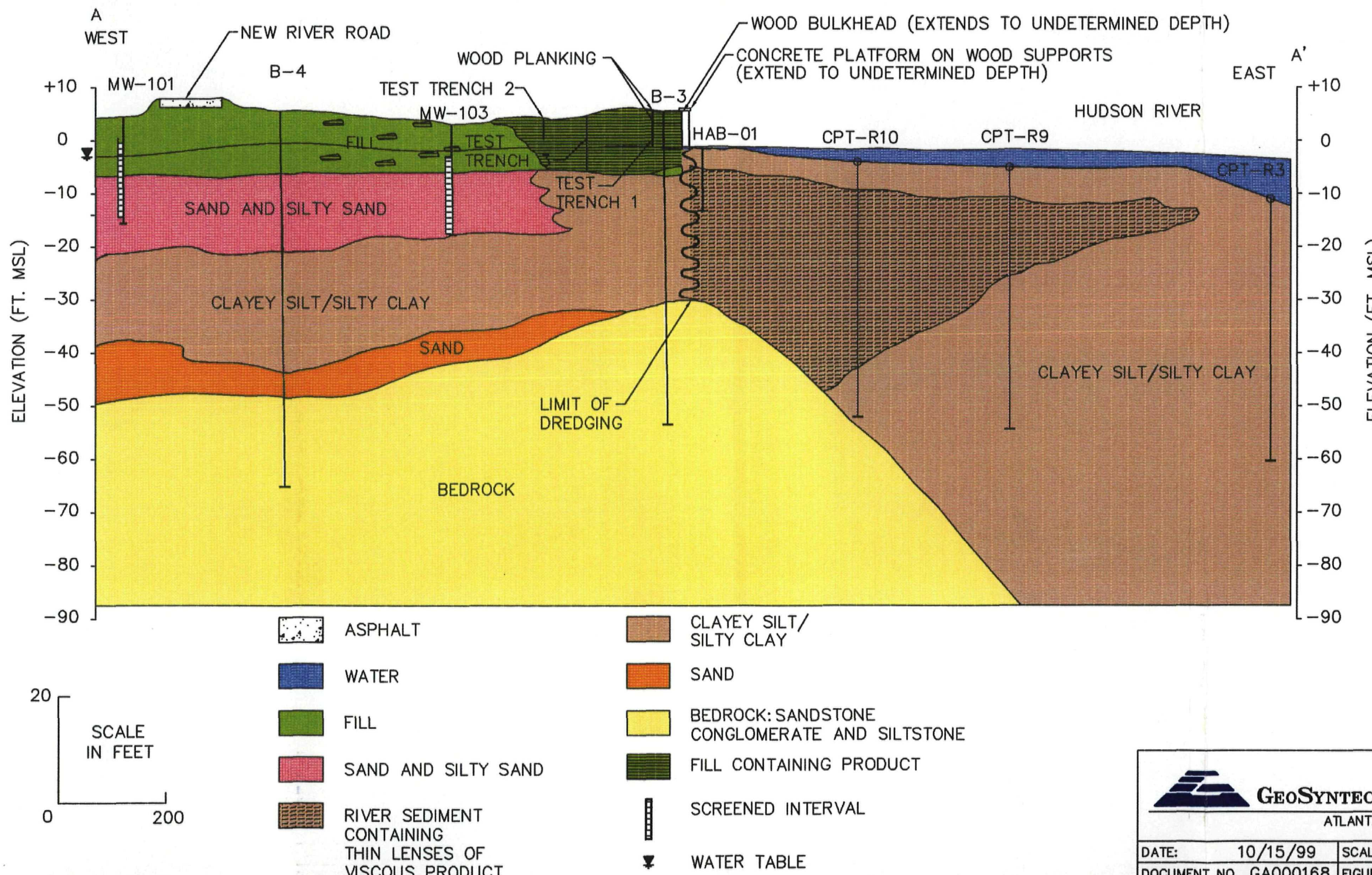
FIGURE NO.	4-1
PROJECT NO.	GL0520
DOCUMENT NO.	GA000168
FILE NO.	GEOPHYSICS.APR

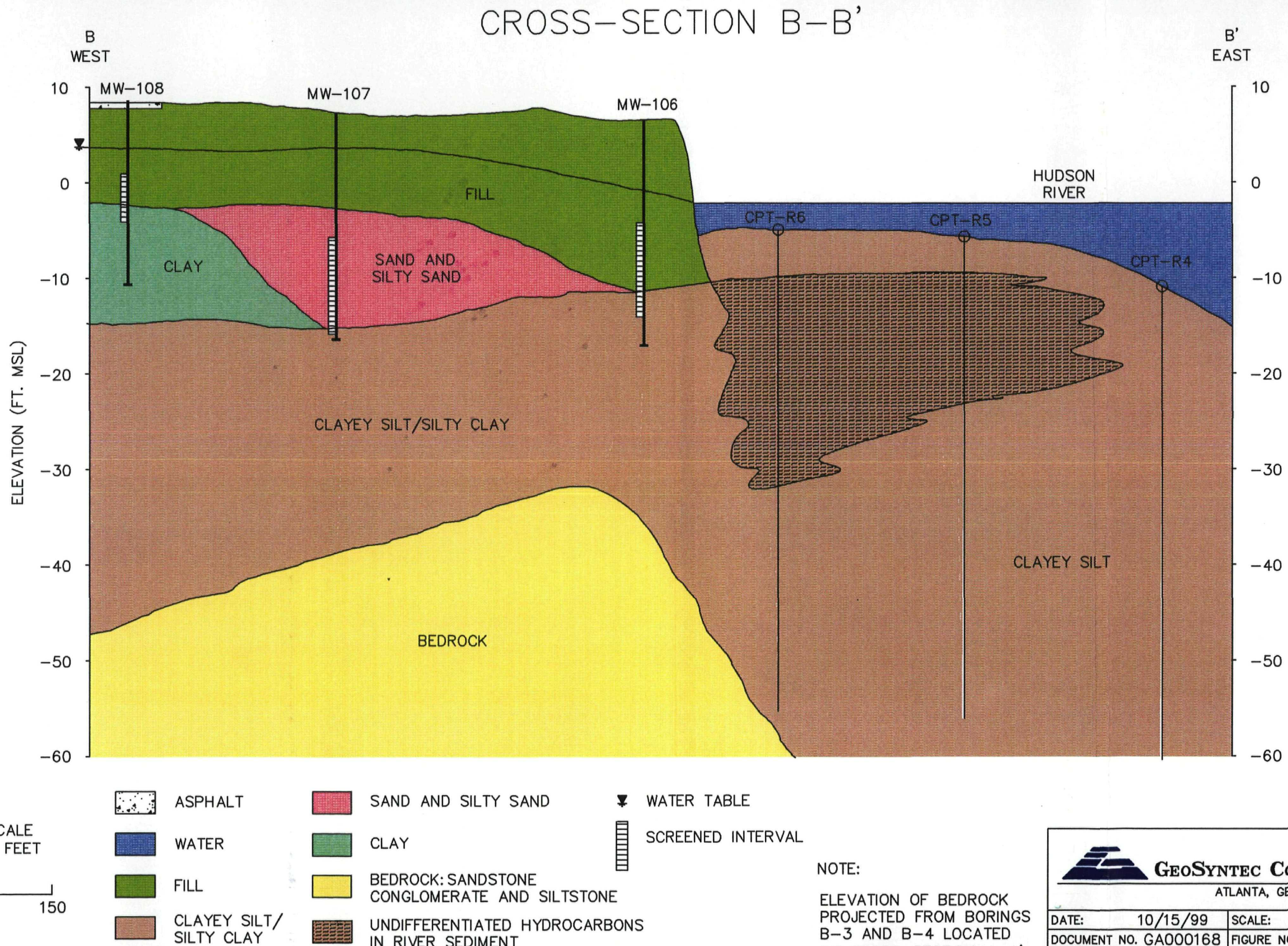
N:\QUANTA\RSI\REVSION_1\FIGURES\GEOPHYSICS.APR

CROSS-SECTION A–A'



GEOSYNTEC CONSULTANTS
ATLANTA, GEORGIA

DATE:	10/15/99	SCALE:	AS SHOWN
DOCUMENT NO.	GA000168	FIGURE NO.	4-4
PROJECT NO.	GL0520-500	FILE NO.	0520F101



NOTE:

ELEVATION OF BEDROCK PROJECTED FROM BORINGS B-3 AND B-4 LOCATED ON CROSS-SECTION A-A'.

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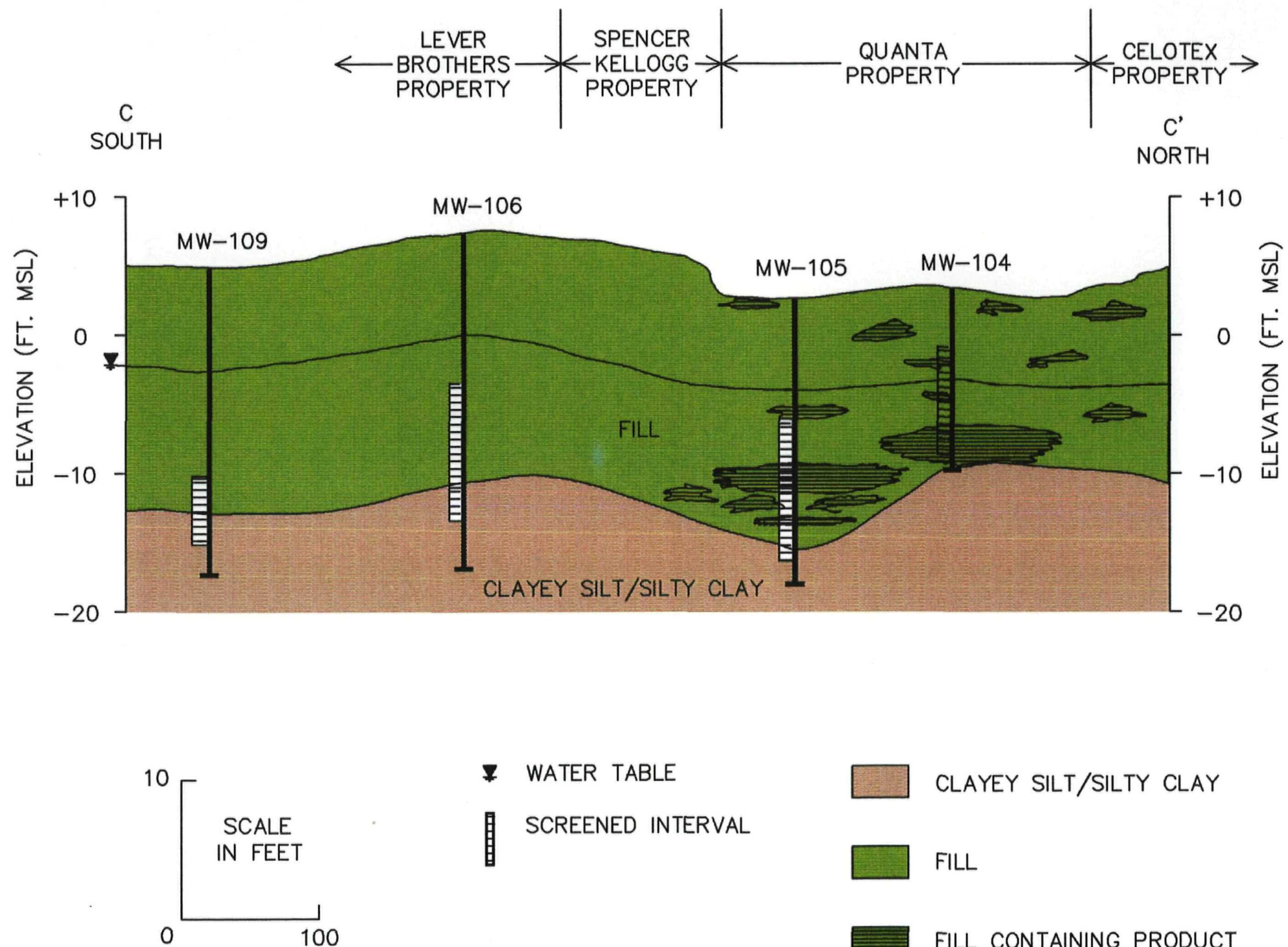
DATE:	10/15/99	SCALE:	AS SHOWN
DOCUMENT NO.	GA000168	FIGURE NO.	4-5
PROJECT NO.	GL0520-500	FILE NO.	0520F102

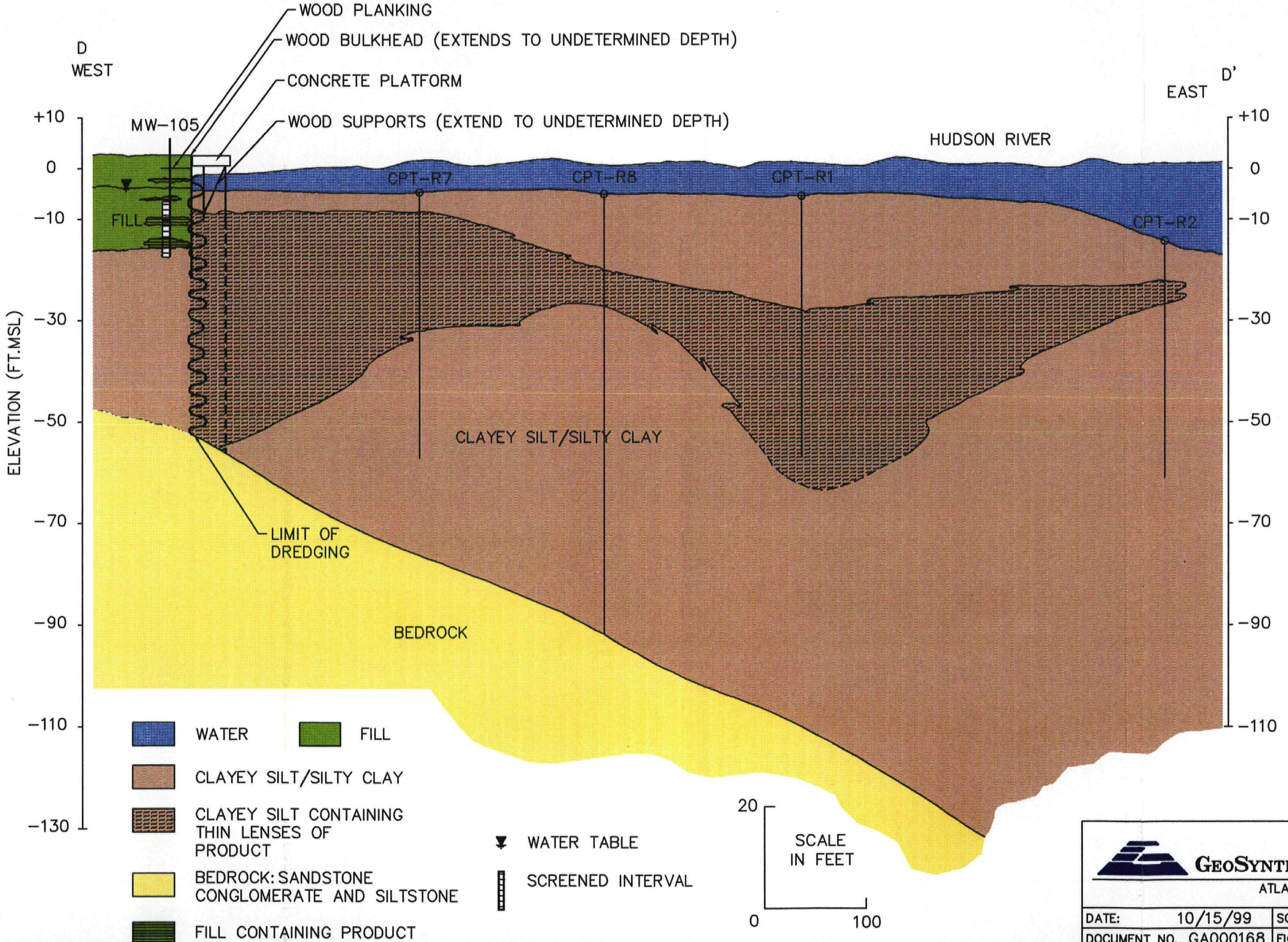
CROSS-SECTION C–C'



GEOSYNTEC CONSULTANTS
ATLANTA, GEORGIA

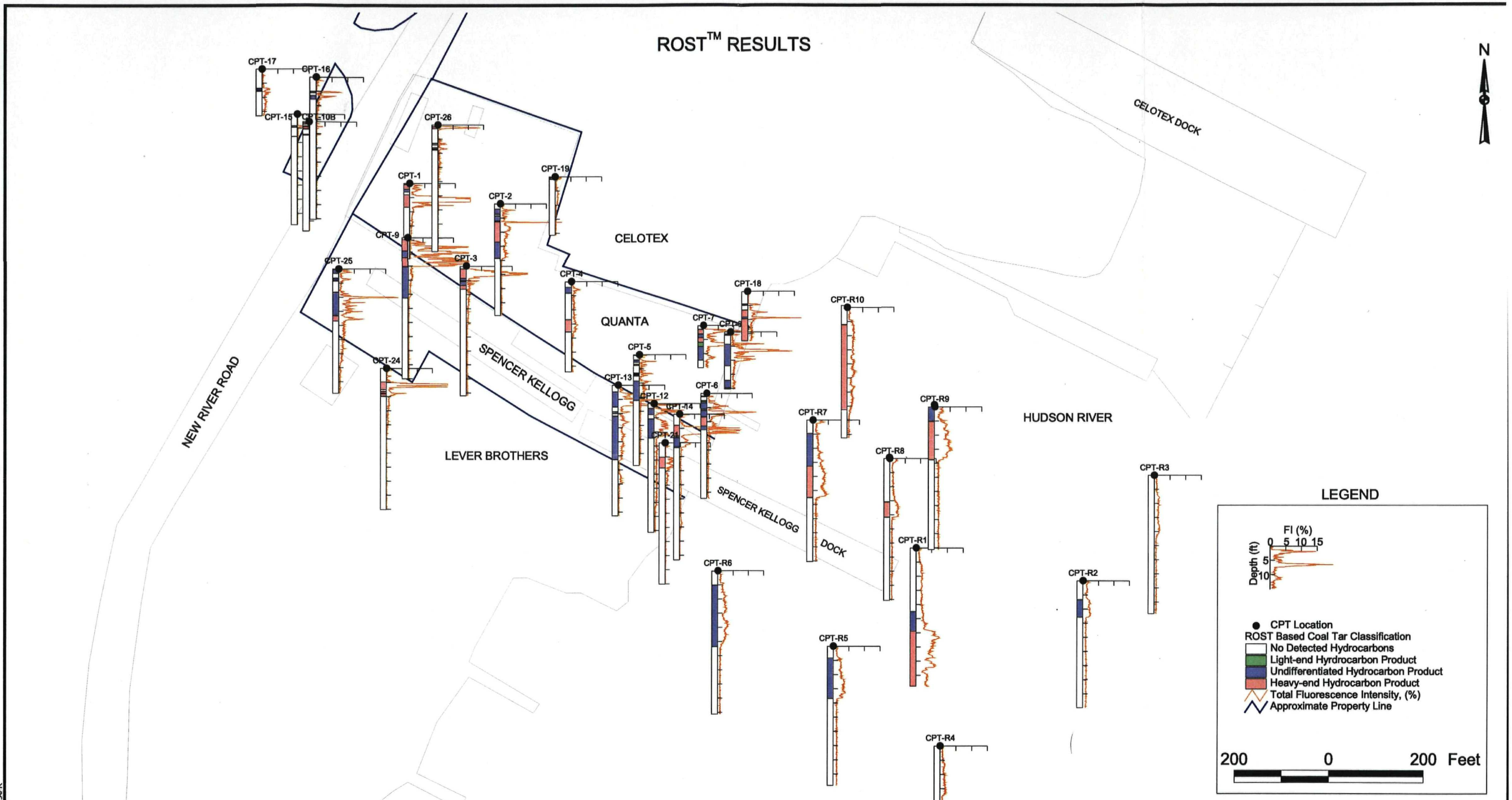
DATE:	10/15/99	SCALE:	AS SHOWN
DOCUMENT NO.	GA000168	FIGURE NO.	4-6
PROJECT NO.	GL0520-500	FILE NO.	0520F103

CROSS-SECTION D-D'



GEOSYNTEC CONSULTANTS
ATLANTA, GEORGIA

DATE: 10/15/99	SCALE: AS SHOWN
DOCUMENT NO. GA000168	FIGURE NO. 4-7
PROJECT NO. GL0520-500	FILE NO. 0520F104

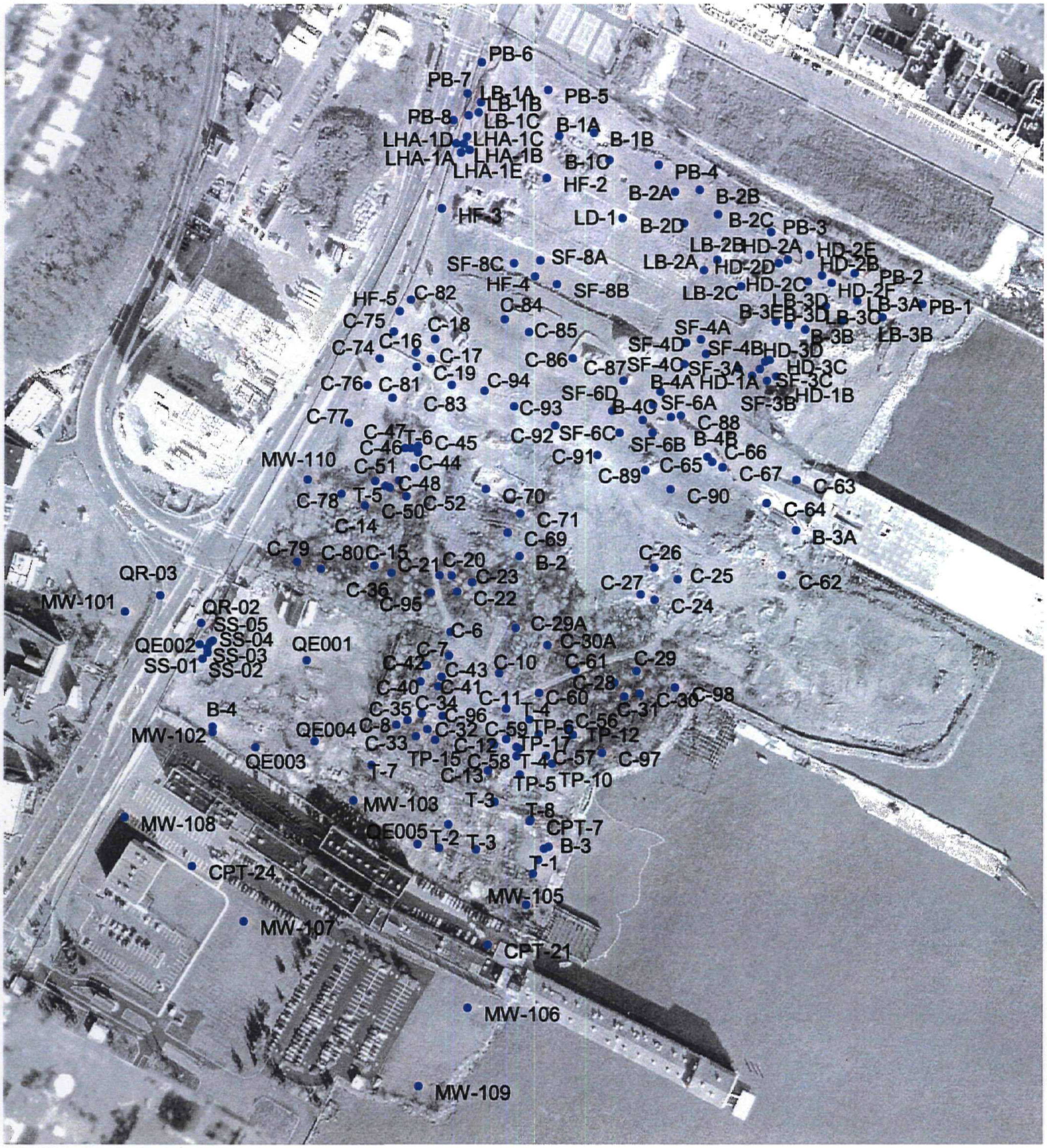


GEOSYNTEC CONSULTANTS
ATLANTA, GEORGIA

DATE:	15 MARCH 2000	SCALE:	1:2,400
PROJECT NO.	GL0520	FIGURE NO.	4-8
DOCUMENT NO.	GA000168	FILE NO.	ROST.APR

SOIL SAMPLING LOCATIONS

N



Aerial Photograph Dated 1998

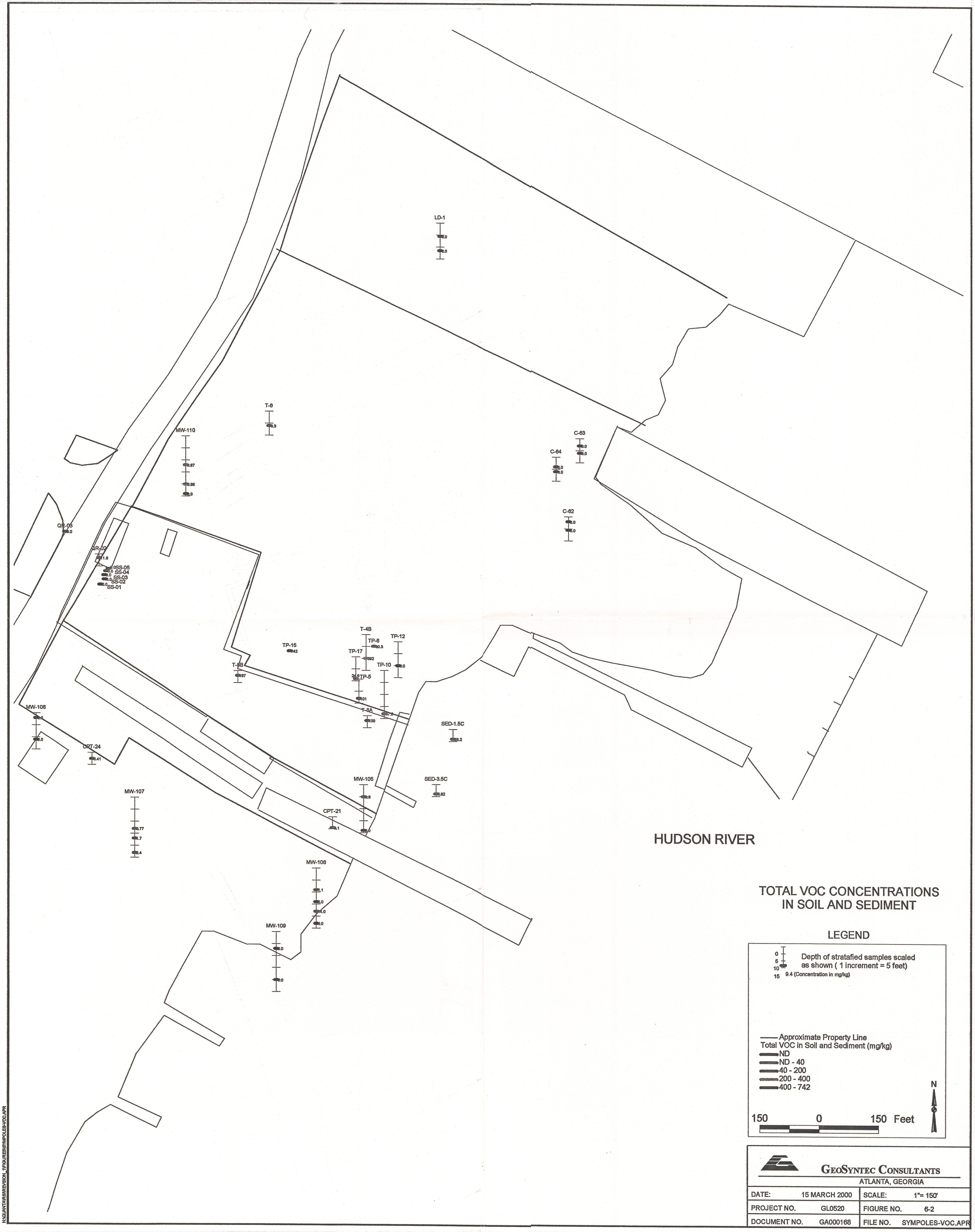
150 0 150 300 Feet

GEOSYNTEC CONSULTANTS

ATLANTA, GEORGIA

FIGURE NO.	6-1
PROJECT NO.	GL0520
DOCUMENT NO.	GA000168
FILE NO.	FILE.APR

N:\QUANTA\RSI\REVSION_1\FIGURES\SOIL_SED_LOC.APR



TOTAL VOC CONCENTRATIONS IN SOIL AND SEDIMENT

LEGEND

0 5 10 15 — Depth of stratafied samples scaled as shown (1 increment = 5 feet)

9.4 (Concentration in mg/kg)

—— Approximate Property Line

Total VOC in Soil and Sediment (mg/kg)

- ND
- ND - 40
- 40 - 200
- 200 - 400
- 400 - 742

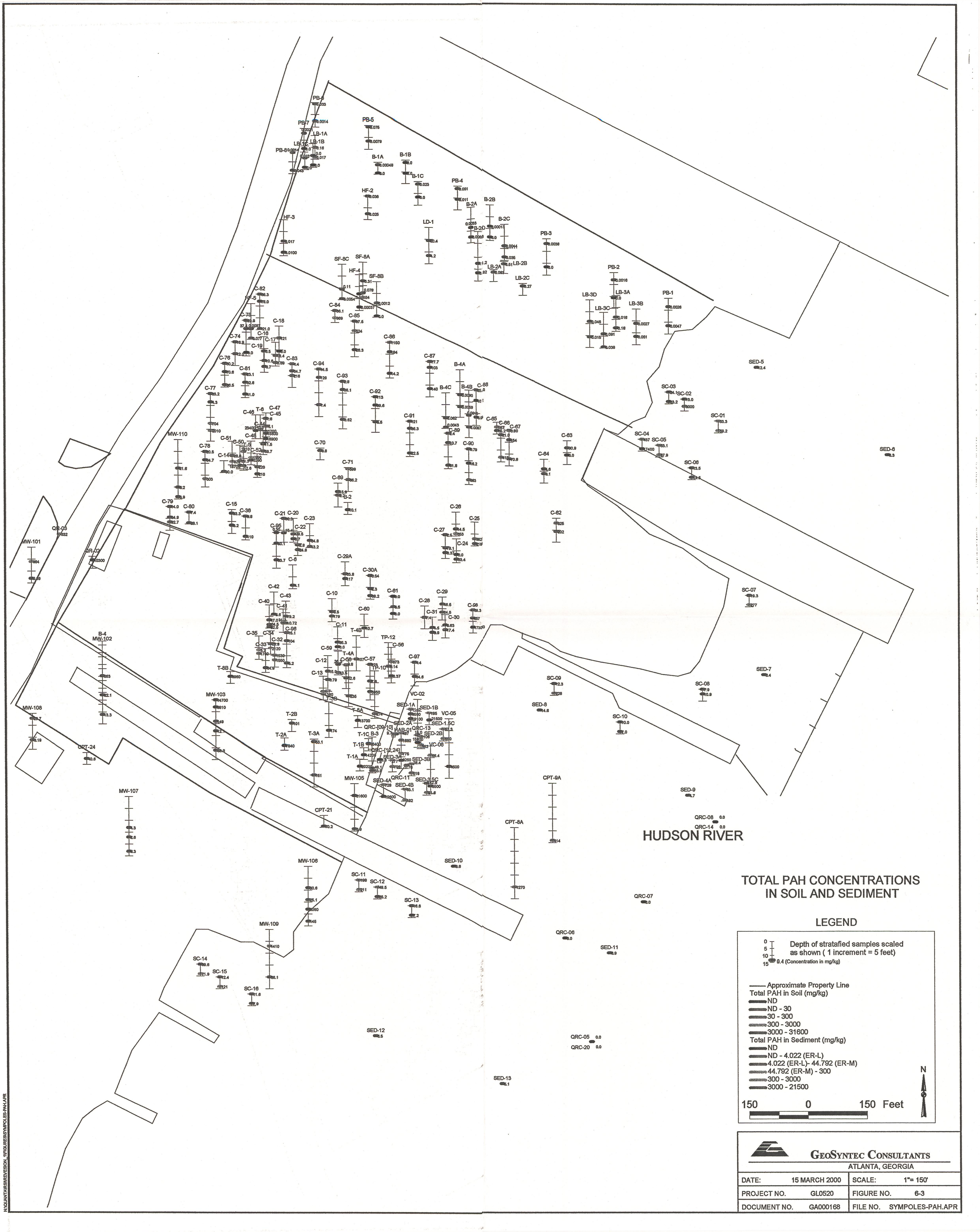
150 0 150 Feet

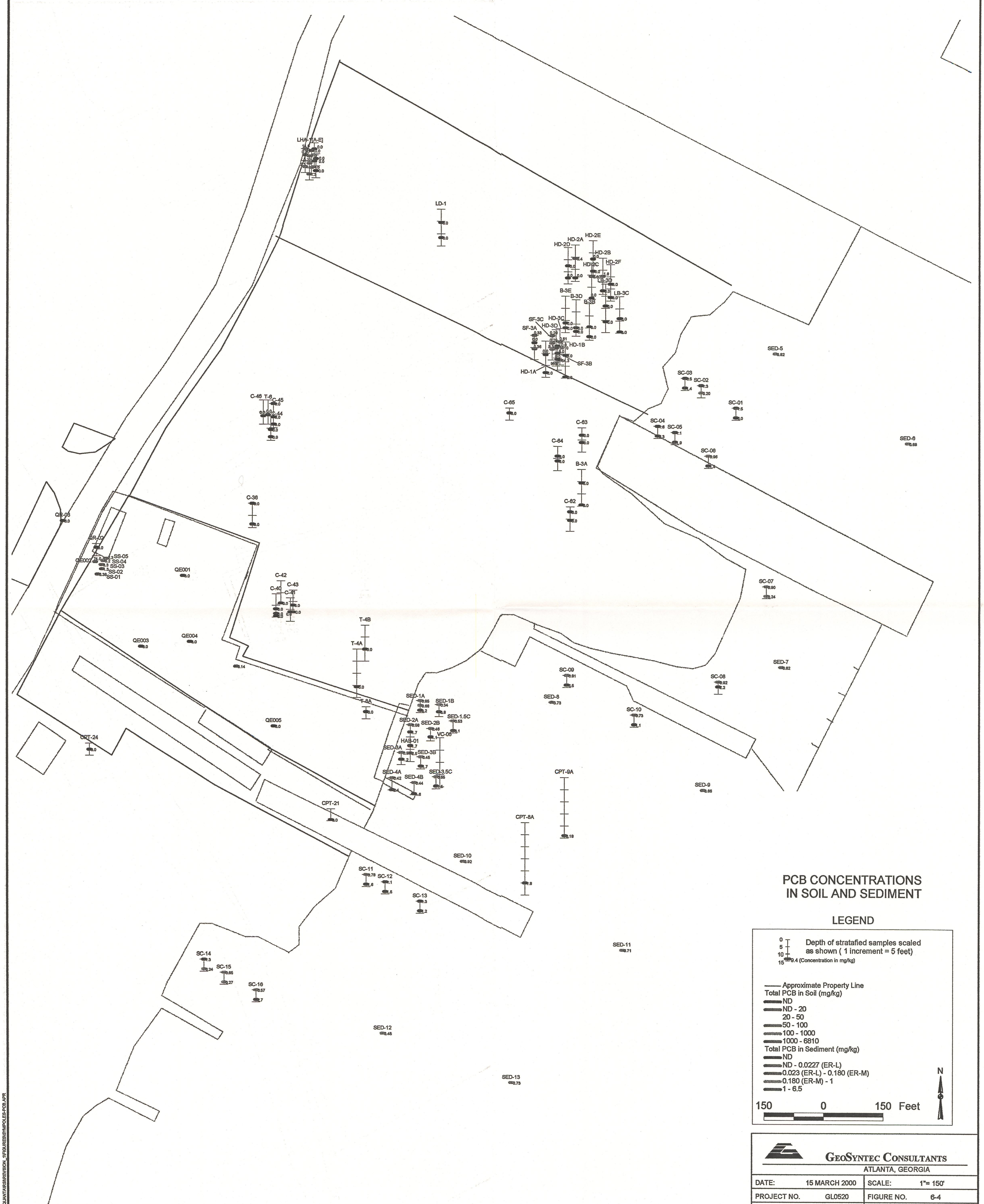
N

GeoSyntec Consultants

ATLANTA, GEORGIA

DATE:	15 MARCH 2000	SCALE:	1"= 150'
PROJECT NO.	GL0520	FIGURE NO.	6-2
DOCUMENT NO.	GA000168	FILE NO.	SYMPOLES-VOC.APR


HUDSON RIVER
TOTAL PAH CONCENTRATIONS
IN SOIL AND SEDIMENT
LEGEND
Depth of stratafied samples scaled as shown (1 increment = 5 feet)
0
5
10
15
9.4 (Concentration in mg/kg)
Approximate Property Line
Total PAH in Soil (mg/kg)
ND
ND - 30
30 - 300
300 - 3000
3000 - 31600
Total PAH in Sediment (mg/kg)
ND
ND - 4.022 (ER-L)
4.022 (ER-L)- 44.792 (ER-M)
44.792 (ER-M) - 300
300 - 3000
3000 - 21500
N
150 0 150 Feet
GeoSyntec Consultants
ATLANTA, GEORGIA
DATE: 15 MARCH 2000
SCALE: 1"= 150'
PROJECT NO. GL0520
FIGURE NO. 6-3
DOCUMENT NO. GA000168
FILE NO. SYMPOLES-PAH.APR
N:\QUANTARS\REVISION_1\FIGURES\SYMPOLES-PAH.APR



PCB CONCENTRATIONS IN SOIL AND SEDIMENT

LEGEND

0
5
10
15

Depth of stratafied samples scaled as shown (1 increment = 5 feet)

9.4 (Concentration in mg/kg)

Approximate Property Line

Total PCB in Soil (mg/kg)

- ND
- ND - 20
- 20 - 50
- 50 - 100
- 100 - 1000
- 1000 - 6810

Total PCB in Sediment (mg/kg)

- ND
- ND - 0.0227 (ER-L)
- 0.023 (ER-L) - 0.180 (ER-M)
- 0.180 (ER-M) - 1
- 1 - 6.5

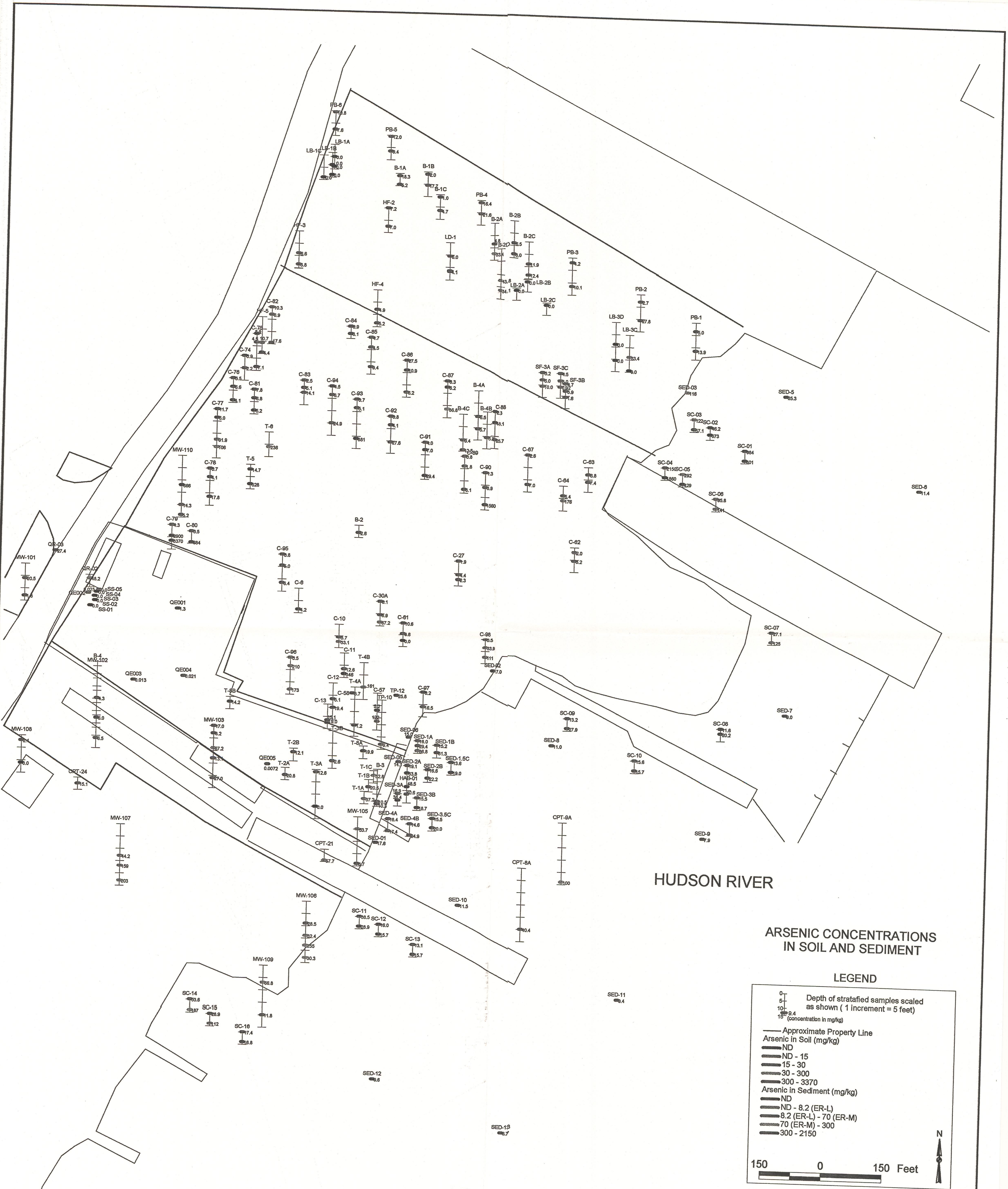
150 0 150 Feet

GEOSYNTEC CONSULTANTS

ATLANTA, GEORGIA

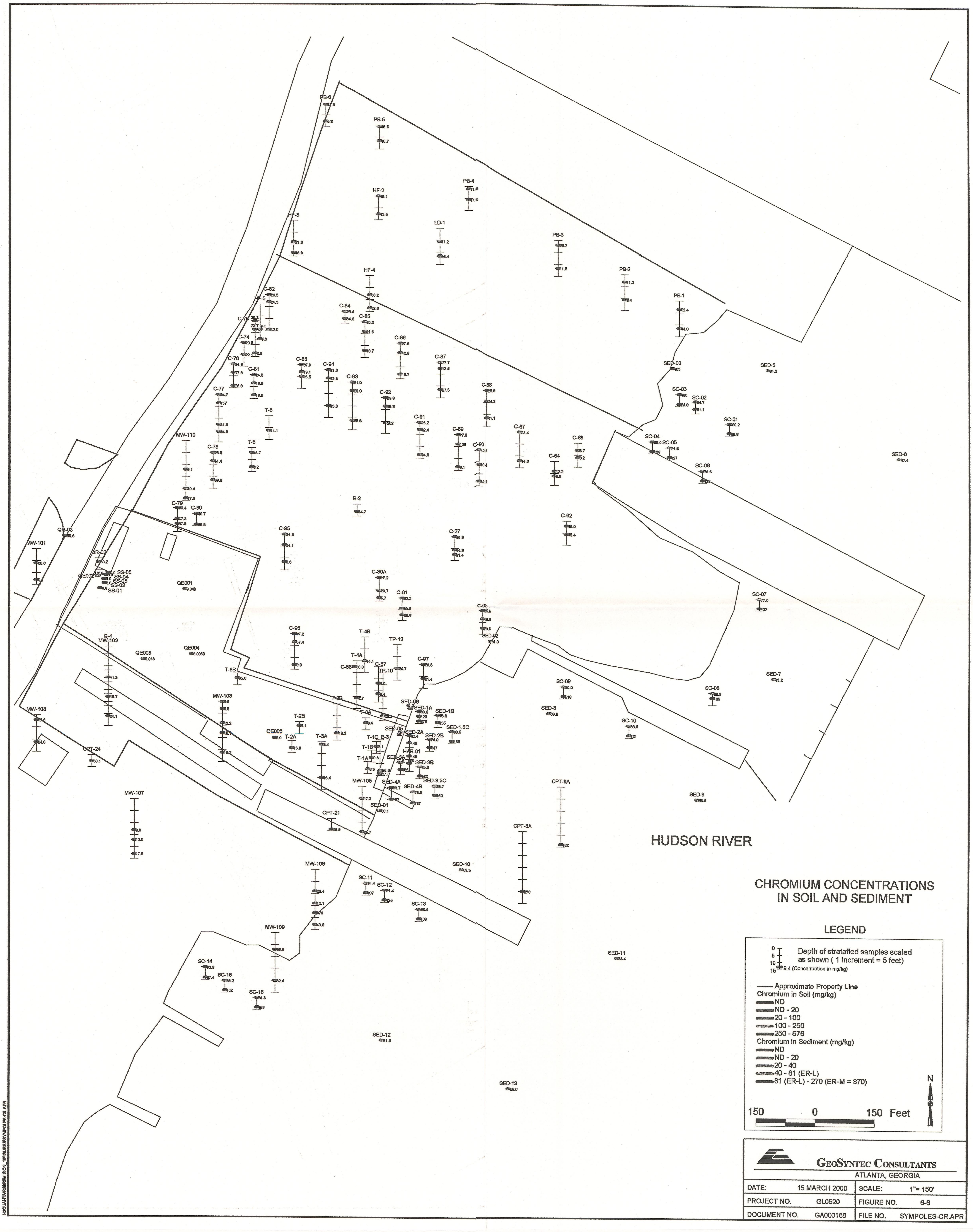
DATE:	15 MARCH 2000	SCALE:	1"= 150'
PROJECT NO.	GL0520	FIGURE NO.	6-4
DOCUMENT NO.	GA000168	FILE NO.	SYNPOLES-PCB.APR

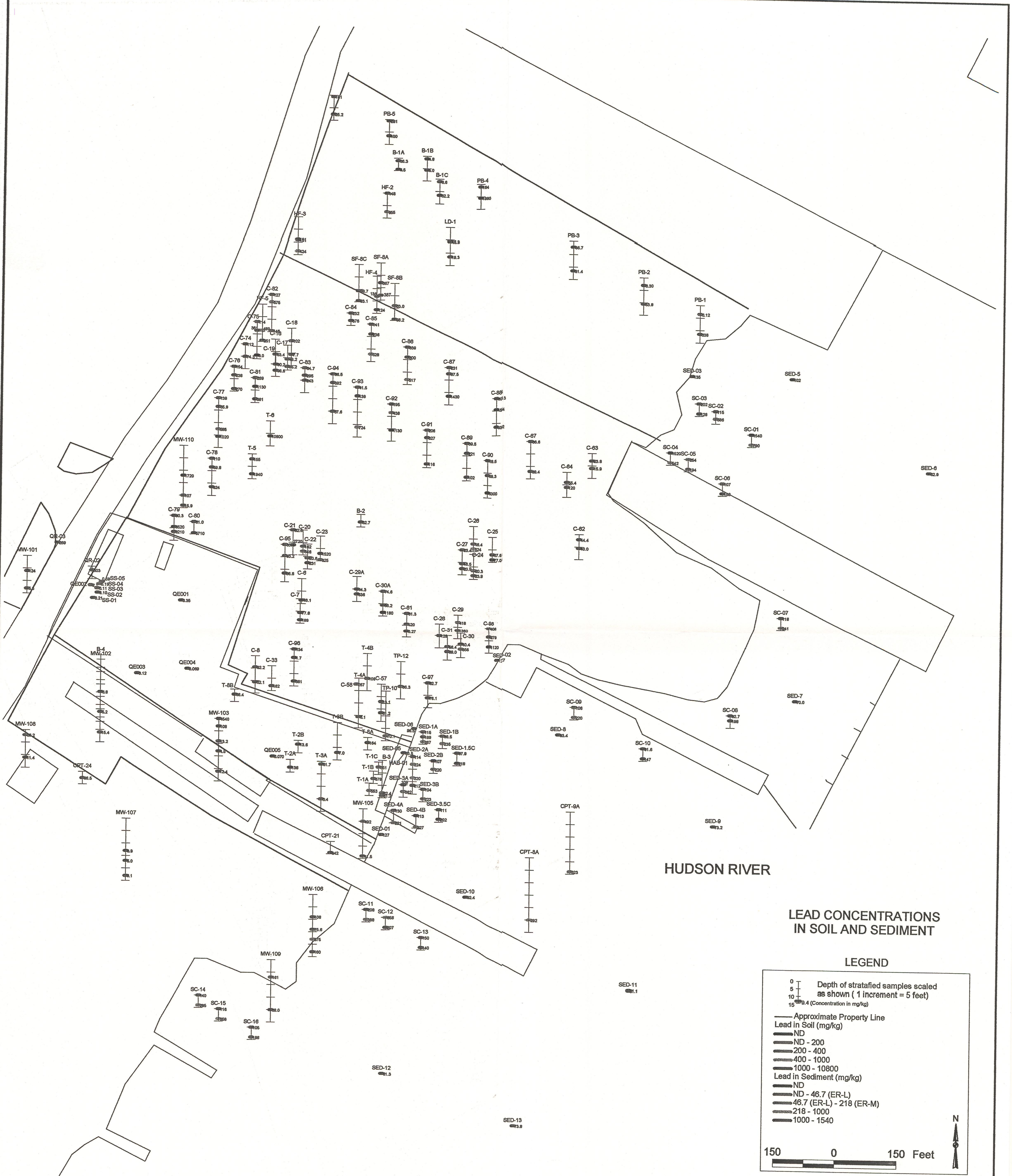
N:\QUANTA\REVISION_1\FIGURES\SYNPOLES-PCB.APR



GEOSYNTEC CONSULTANTS
ATLANTA, GEORGIA

DATE:	15 MARCH 2000	SCALE:	1"= 150'
PROJECT NO.	GL0520	FIGURE NO.	6-5
DOCUMENT NO.	GA000168	FILE NO.	SYMPOLES-AS AR


HUDSON RIVER
CHROMIUM CONCENTRATIONS
IN SOIL AND SEDIMENT
LEGEND
Depth of stratafied samples scaled
as shown (1 increment = 5 feet)
0
5
10
15
9.4 (Concentration in mg/kg)
Approximate Property Line
Chromium in Soil (mg/kg)
ND
ND - 20
20 - 100
100 - 250
250 - 676
Chromium in Sediment (mg/kg)
ND
ND - 20
20 - 40
40 - 81 (ER-L)
81 (ER-L) - 270 (ER-M = 370)
N
150
0
150 Feet
GeoSyntec Consultants
ATLANTA, GEORGIA
DATE: 15 MARCH 2000
SCALE: 1"= 150'
PROJECT NO. GL0520
FIGURE NO. 6-6
DOCUMENT NO. GA000168
FILE NO. SYMPOLES-CR.APR

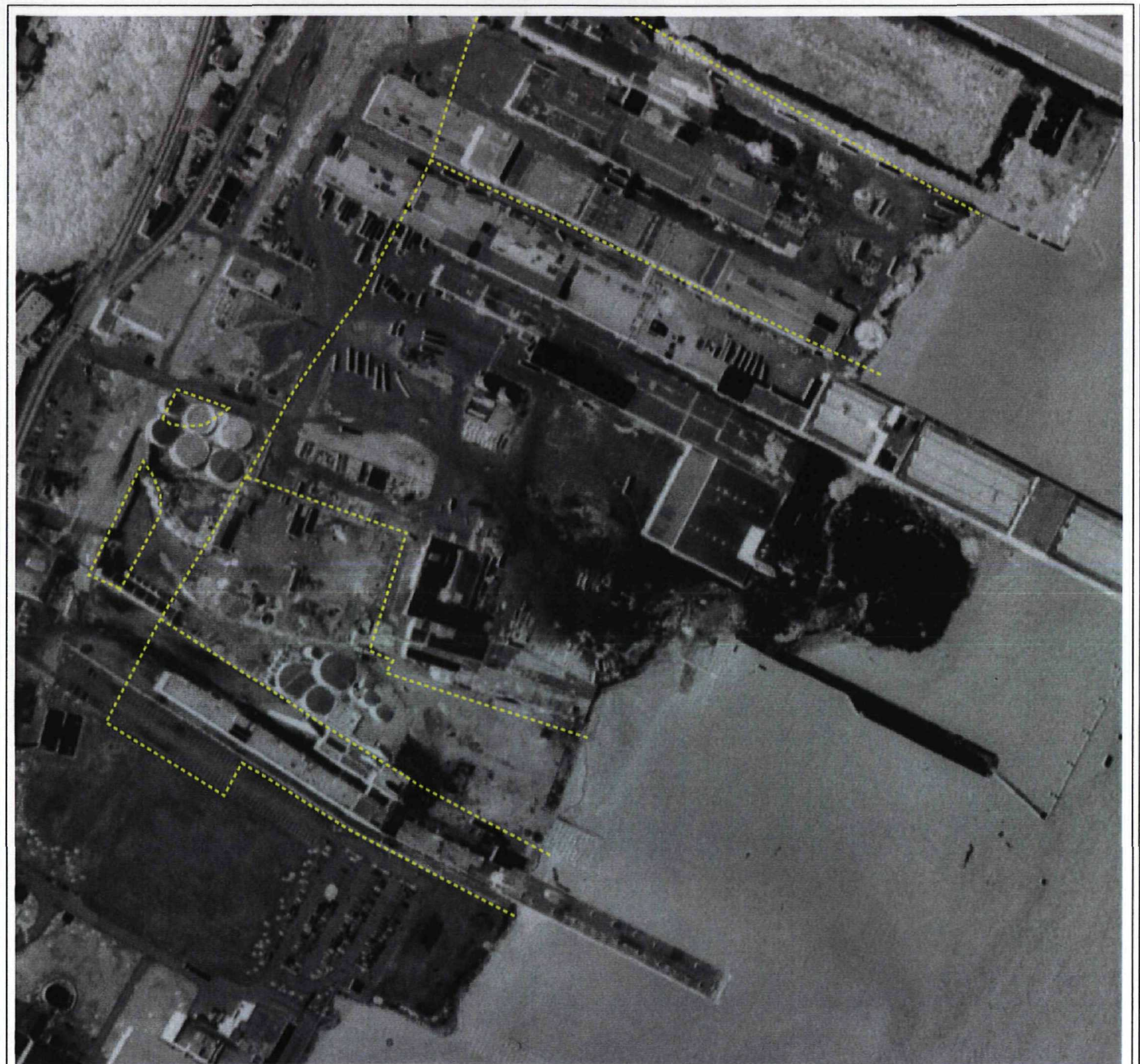


GeoSyntec Consultants
ATLANTA, GEORGIA

DATE:	15 MARCH 2000	SCALE:	1"= 150'
PROJECT NO.	GL0520	FIGURE NO.	6-7
DOCUMENT NO.	GA000168	FILE NO.	SYMPOLES-PB.APR

AERIAL PHOTOS (1986; 1989) OF PAST INDUSTRIAL OPERATIONS

N



1986 AERIAL PHOTOGRAPH

1989 AERIAL PHOTOGRAPH

150 0 150 300 Feet

LEGEND

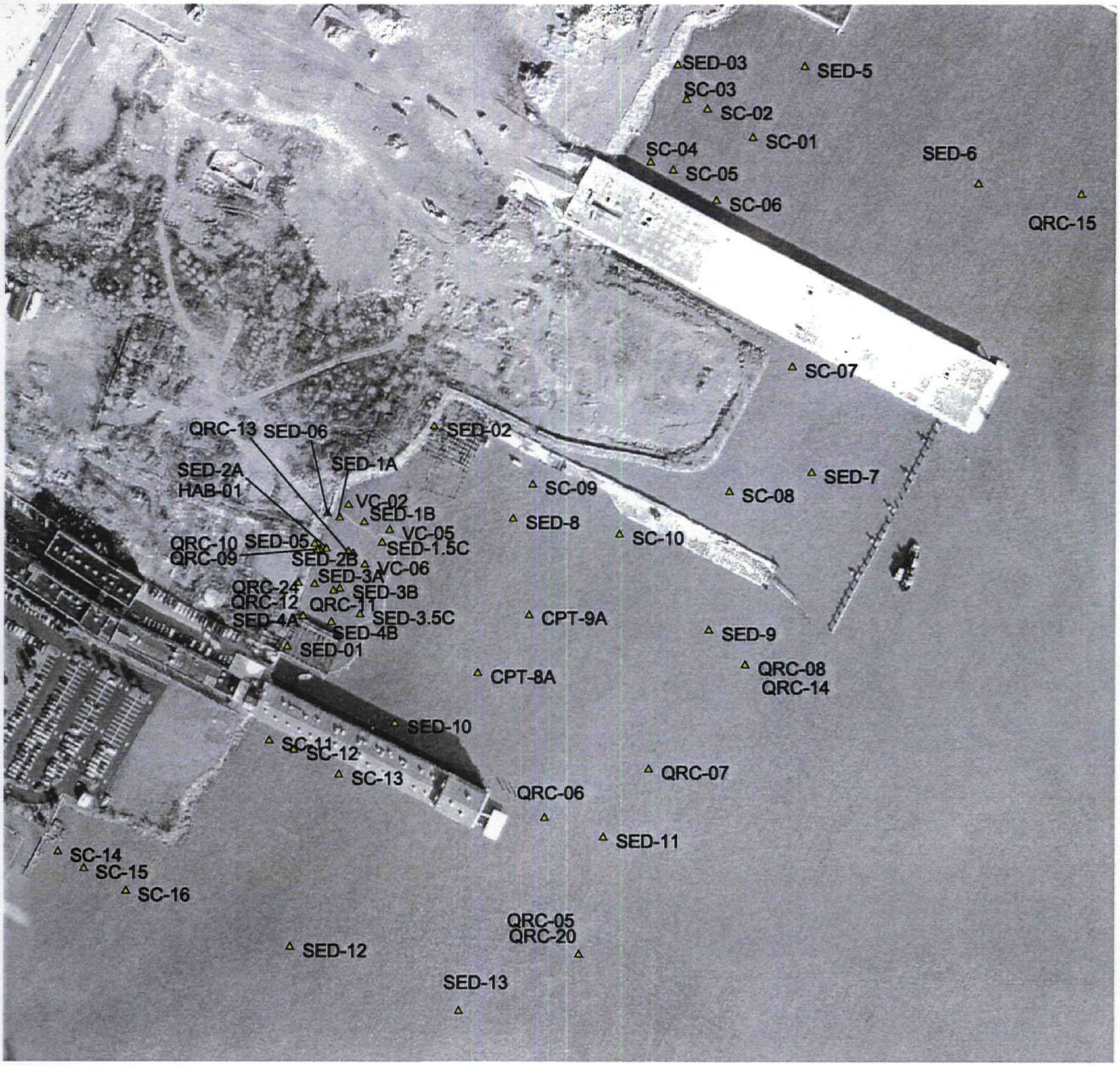
Approximate Current Property Boundaries

GEOSYNTEC CONSULTANTS
ATLANTA, GEORGIA

DATE:	16 MARCH 2000	SCALE:	1"= 300 FEET
PROJECT NO.	GL0520	FIGURE NO.	2-4
DOCUMENT NO.	GA000168	FILE NO.	INDUSTRIAL.APR

N:\QUANTA\RSI\REV... 1\FIGURES\INDUSTRIAL.APR

SEDIMENT SAMPLING LOCATIONS



Aerial Photograph Dated 1998

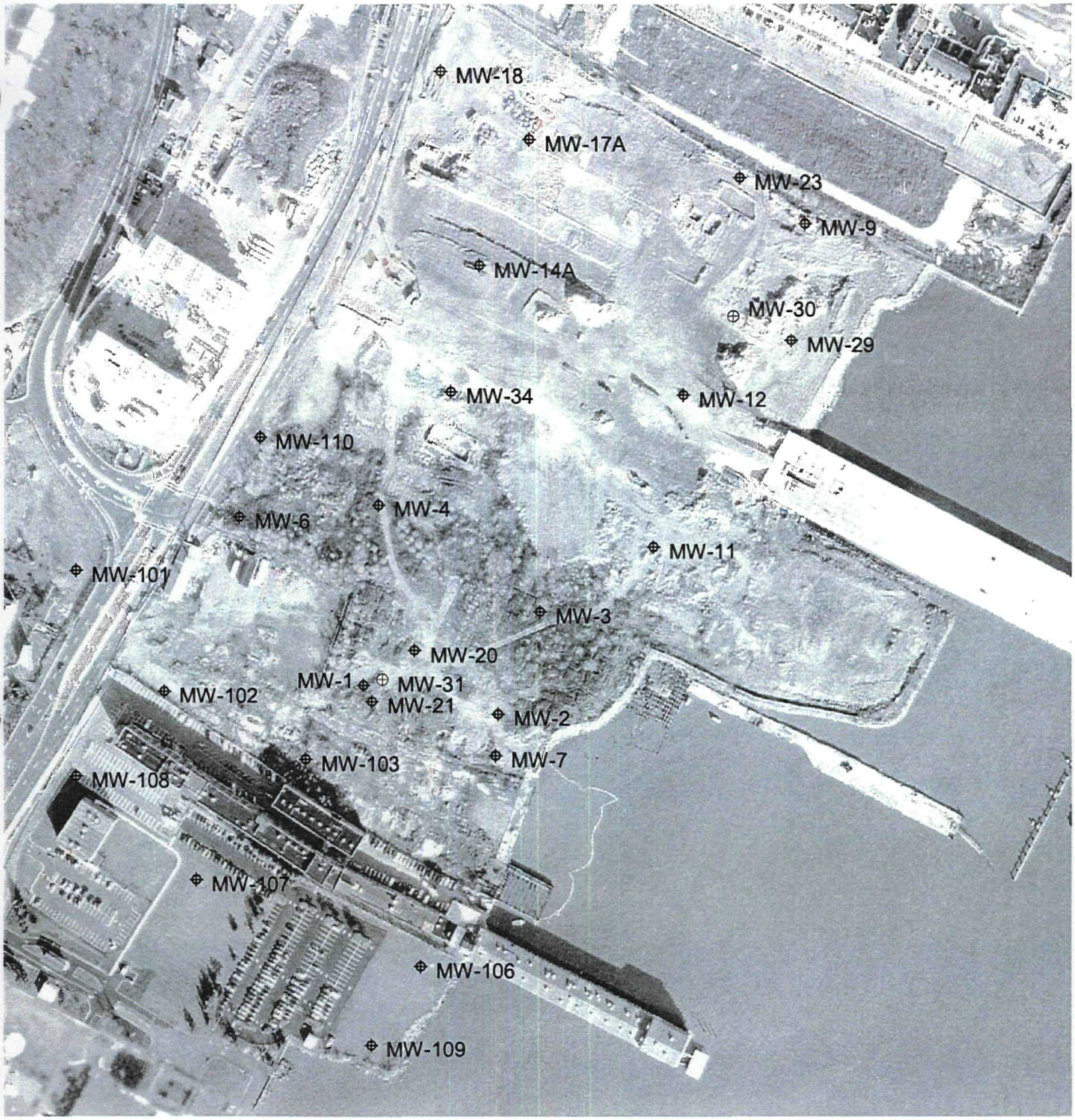
150 0 150 300 Feet

GEOSYNTEC CONSULTANTS
ATLANTA, GEORGIA

FIGURE NO.	6-8
PROJECT NO.	GL0520
DOCUMENT NO.	GA000168
FILE NO.	FILE.APR

N:\QUANTA\RSI\REVSION_1\FIGURES\SOIL_SED_LOC.APR

GROUNDWATER SAMPLING LOCATIONS



Aerial Photograph Dated 1998

N

LEGEND

⊕ Monitoring Wells Screened Above Confining Unit
⊕ Monitoring Wells Screened Below Confining Unit

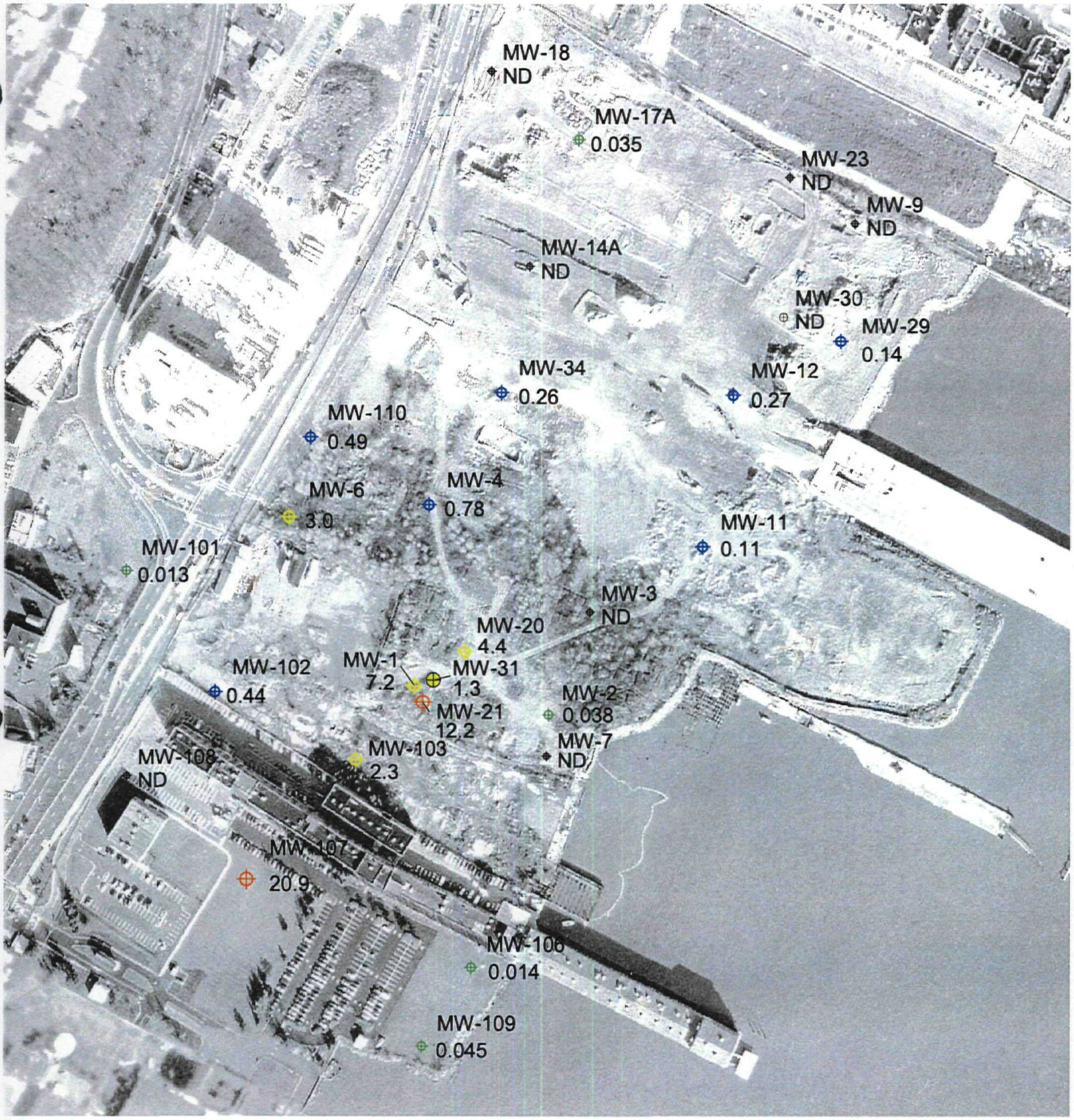
150 0 150 300 Feet

GeoSyntec Consultants
ATLANTA, GEORGIA

FIGURE NO.	6-9
PROJECT NO.	GL0520
DOCUMENT NO.	GA000168
FILE NO.	GW.APR

N:\QUANTA\RSI\REVSION_1\FIGURES\GW.APR

ARSENIC CONCENTRATIONS IN GROUNDWATER



Aerial Photograph Dated 1998

LEGEND

Arsenic Concentration in Groundwater [mg/L]	
Above Confining Unit	Below Confining Unit
ND	ND
0 - 0.1	0 - 0.1
0.1 - 1.0	0.1 - 1.0
1.0 - 10	1.0 - 10
10 - 20.9	10 - 20.9

N

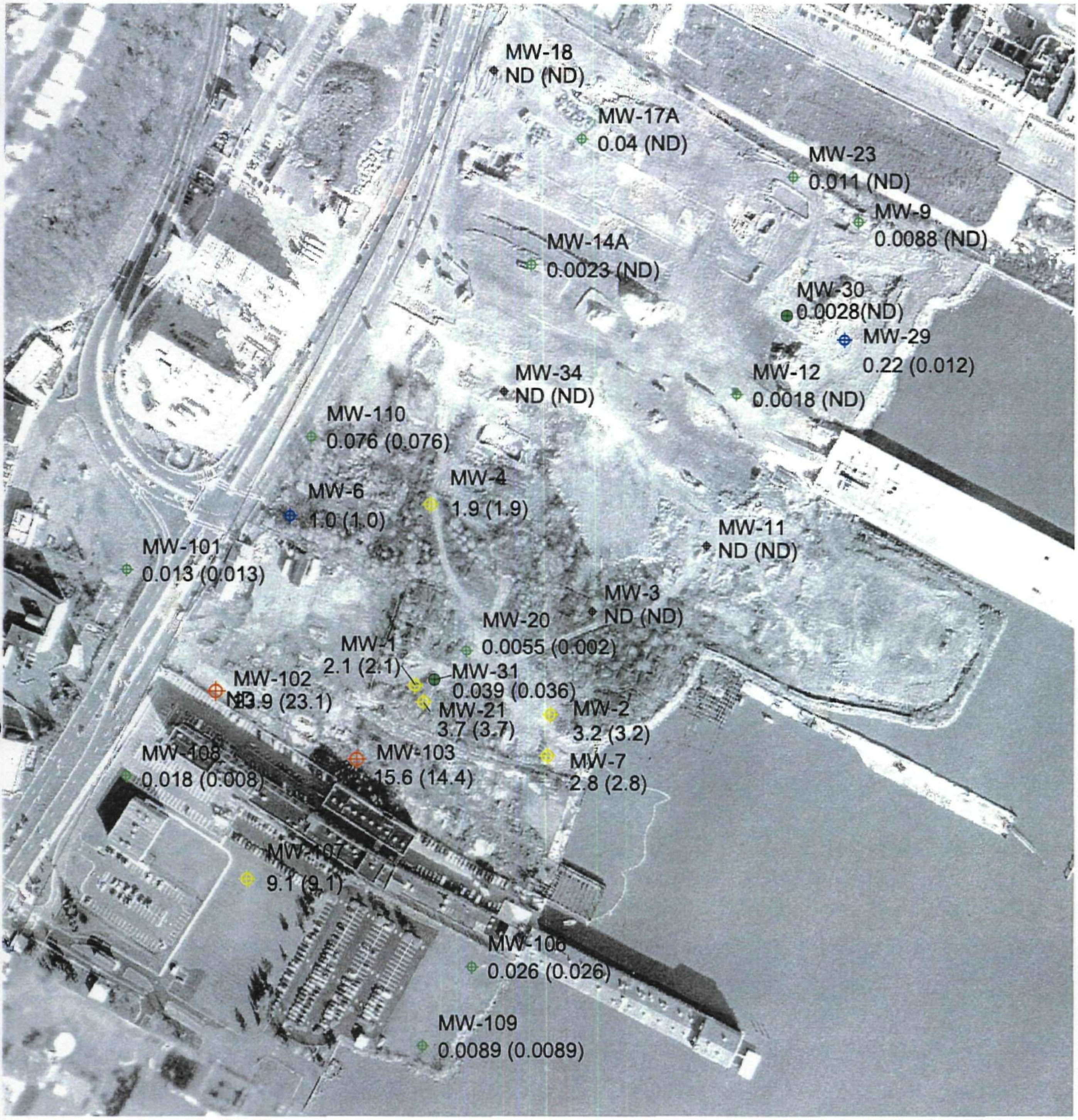
150 0 150 300 Feet

GEOSYNTEC CONSULTANTS
ATLANTA, GEORGIA

FIGURE NO.	6-10
PROJECT NO.	GL0520
DOCUMENT NO.	GA000168
FILE NO.	GW.APR

N:\QUANTA\RSI\REVSION_1\FIGURES\GW.APR

TOTAL VOC AND BTEX CONCENTRATIONS IN GROUNDWATER



Aerial Photograph Dated 1998

LEGEND

VOC Concentration in Groundwater [mg/L]	
Above Confining Unit	Below Confining Unit
ND VOC (BTEX)	ND VOC (BTEX)
0 - 0.1 VOC (BTEX)	0 - 0.1 VOC (BTEX)
0.1 - 1.0 VOC (BTEX)	0.1 - 1.0 VOC (BTEX)
1.0 -10.0 VOC (BTEX)	1.0 -10.0 VOC (BTEX)
10.0 - 23.9 VOC (BTEX)	10.0 - 23.9 VOC (BTEX)

NOTE: Total BTEX concentrations are provided in parenthesis after Total VOC concentrations for each well location.

N

150 0 150 300 Feet

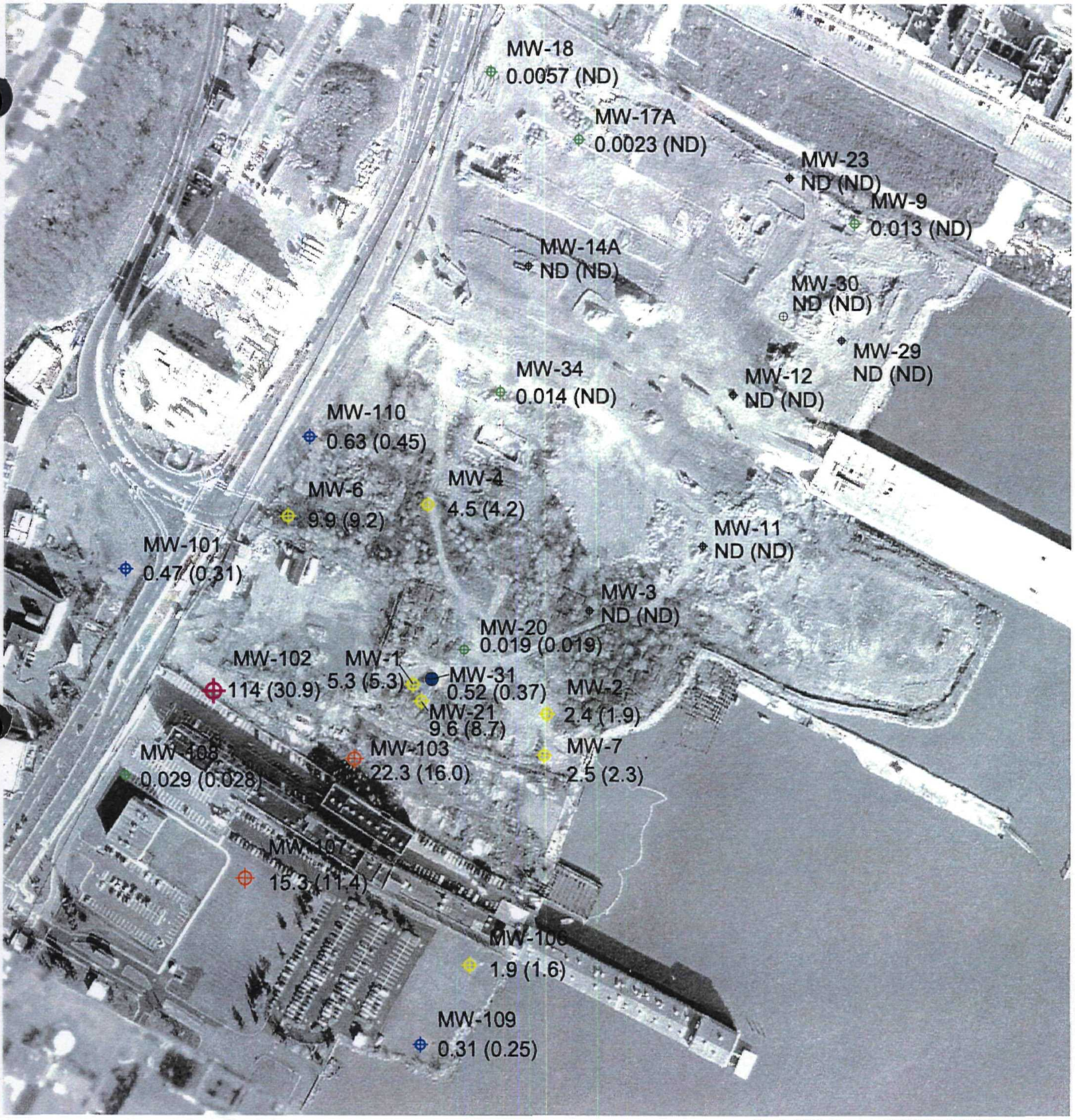
GEOSYNTEC CONSULTANTS

ATLANTA, GEORGIA

FIGURE NO.	6-11
PROJECT NO.	GL0520
DOCUMENT NO.	GA000168
FILE NO.	GW.APR

N:\QUANTA\RSI\REVSION_1\FIGURES\GW.APR

TOTAL SVOC AND PAH CONCENTRATIONS IN GROUNDWATER



Aerial Photograph Dated 1998

LEGEND

SVOC Concentration in Groundwater [mg/L]	
Above Confining Unit	Below Confining Unit
ND SVOC (PAH)	ND SVOC (PAH)
0 - 0.1 SVOC (PAH)	0 - 0.1 SVOC (PAH)
0.1-1.0 SVOC (PAH)	0.1-1.0 SVOC (PAH)
1.0 - 10.0 SVOC (PAH)	1.0 - 10.0 SVOC (PAH)
10.0-100 SVOC (PAH)	10.0-100 SVOC (PAH)
100-114 SVOC (PAH)	100-114 SVOC (PAH)

NOTE: Total PAH concentrations are provided in parenthesis after Total SVOC concentrations for each well location.

N

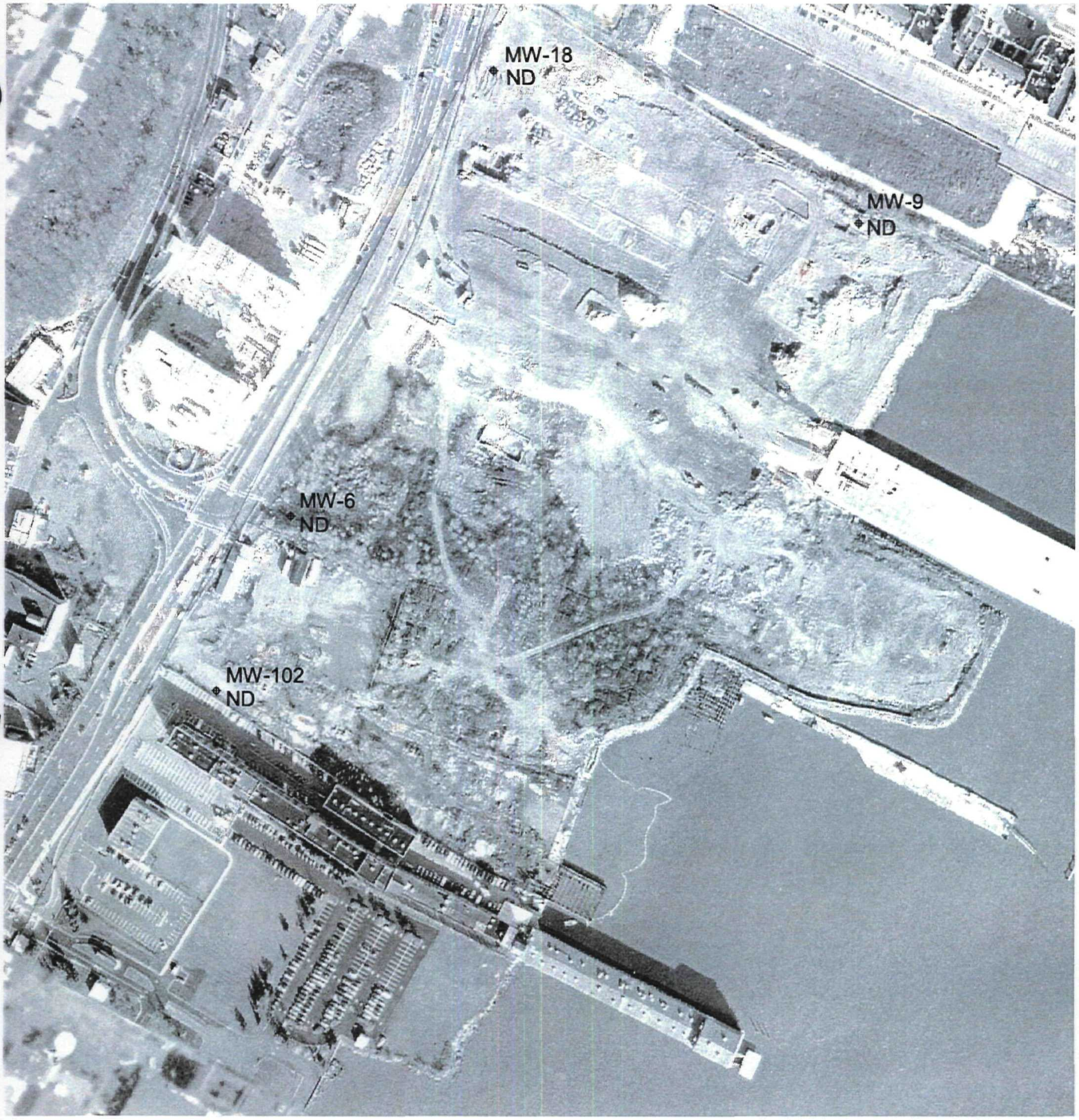
150 0 150 300 Feet

GeoSyntec Consultants
ATLANTA, GEORGIA

FIGURE NO.	6-12
PROJECT NO.	GL0520
DOCUMENT NO.	GA000168
FILE NO.	GW.APR

N:\QUANTA\RSI\REVSION_1\FIGURES\GW.APR

PCB CONCENTRATIONS IN GROUNDWATER



Aerial Photograph Dated 1998

N

LEGEND

PCB Concentration in Groundwater [mg/L]	
Above Confining Unit	Below Confining Unit
◆ ND	⊕ ND

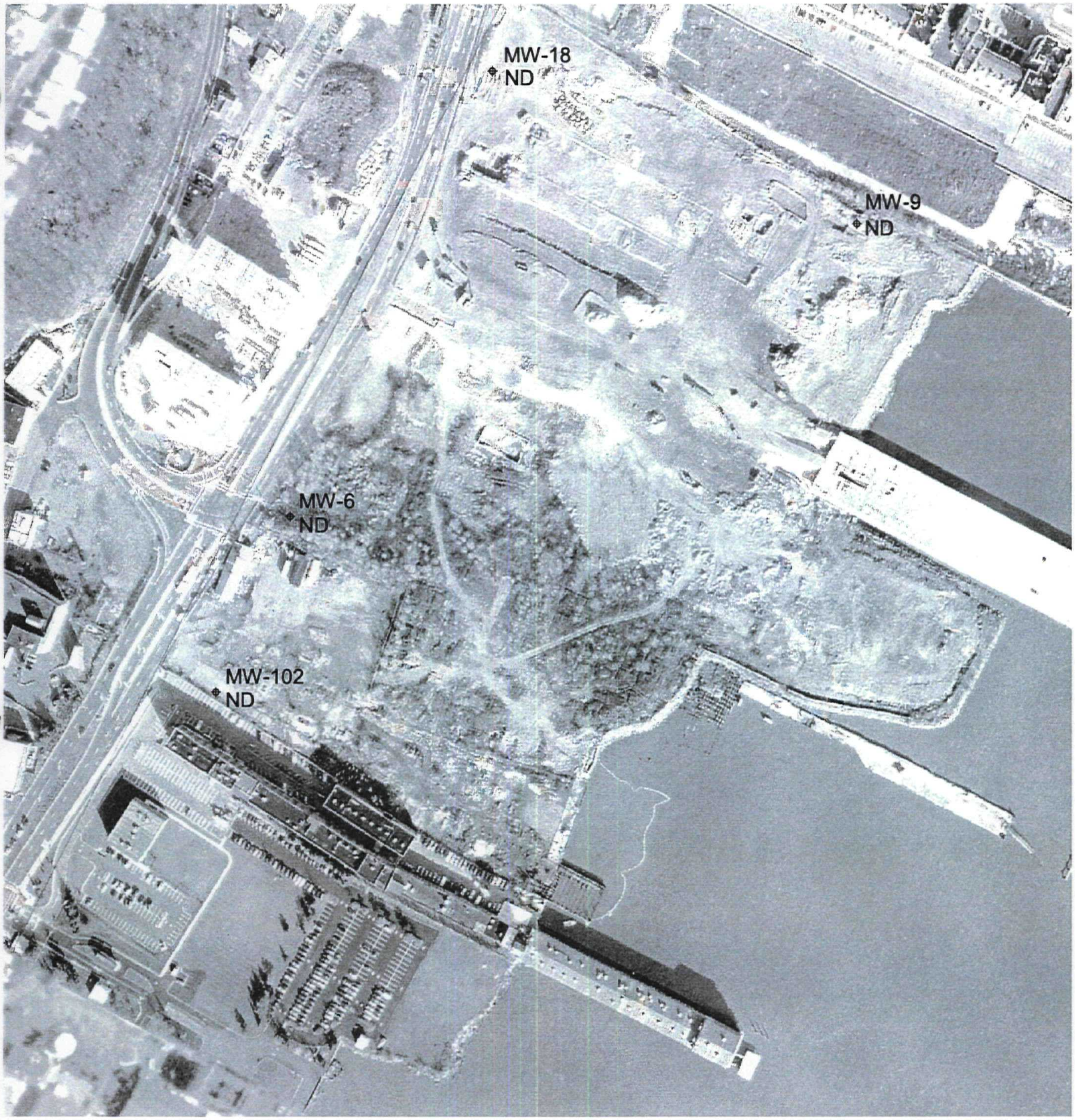
150 0 150 300 Feet

GeoSyntec Consultants
ATLANTA, GEORGIA

FIGURE NO.	6-13
PROJECT NO.	GL0520
DOCUMENT NO.	GA000168
FILE NO.	GW.APR

N:\QUANTA\RSI\REVSION_1\FIGURES\GW.APR

PCB CONCENTRATIONS IN GROUNDWATER



Aerial Photograph Dated 1998

N

LEGEND

PCB Concentration in Groundwater [mg/L]	
Above Confining Unit	Below Confining Unit
⌖ ND	⊕ ND

150 0 150 300 Feet

GEOSYNTEC CONSULTANTS
ATLANTA, GEORGIA

FIGURE NO.	6-13
PROJECT NO.	GL0520
DOCUMENT NO.	GA000168
FILE NO.	GW.APR

N:\QUANTA\RSI\REVSION_1\FIGURES\GW.APR

Figure 6-14
Arsenic Eh-pH Diagram (Activity=2.8e-04M = 20.9 mg/L)

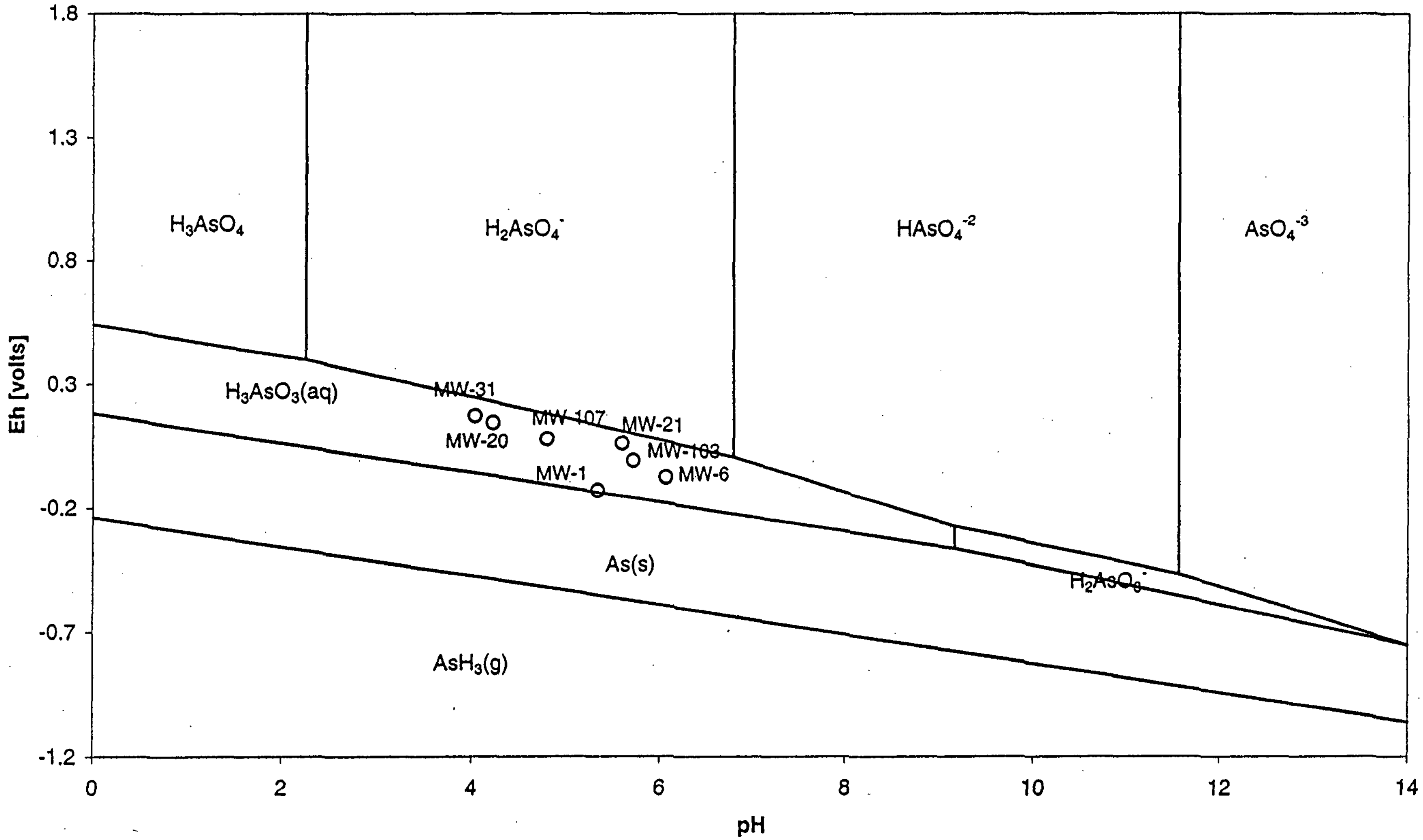


Figure 6-17
Arsenic Eh-pH Diagram, Downgradient Wells (Activity=2.8e-04M = 20.9 mg/L)

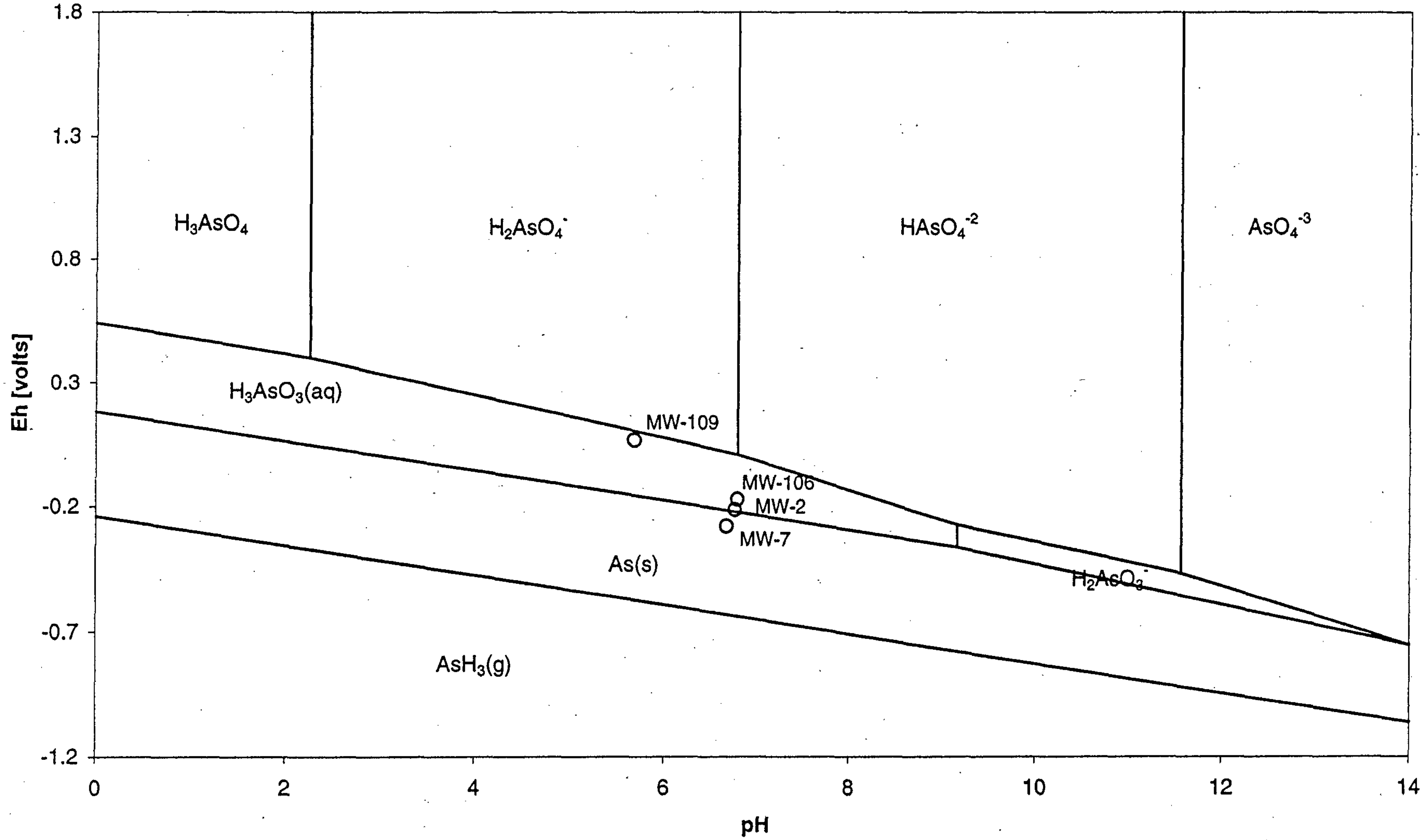
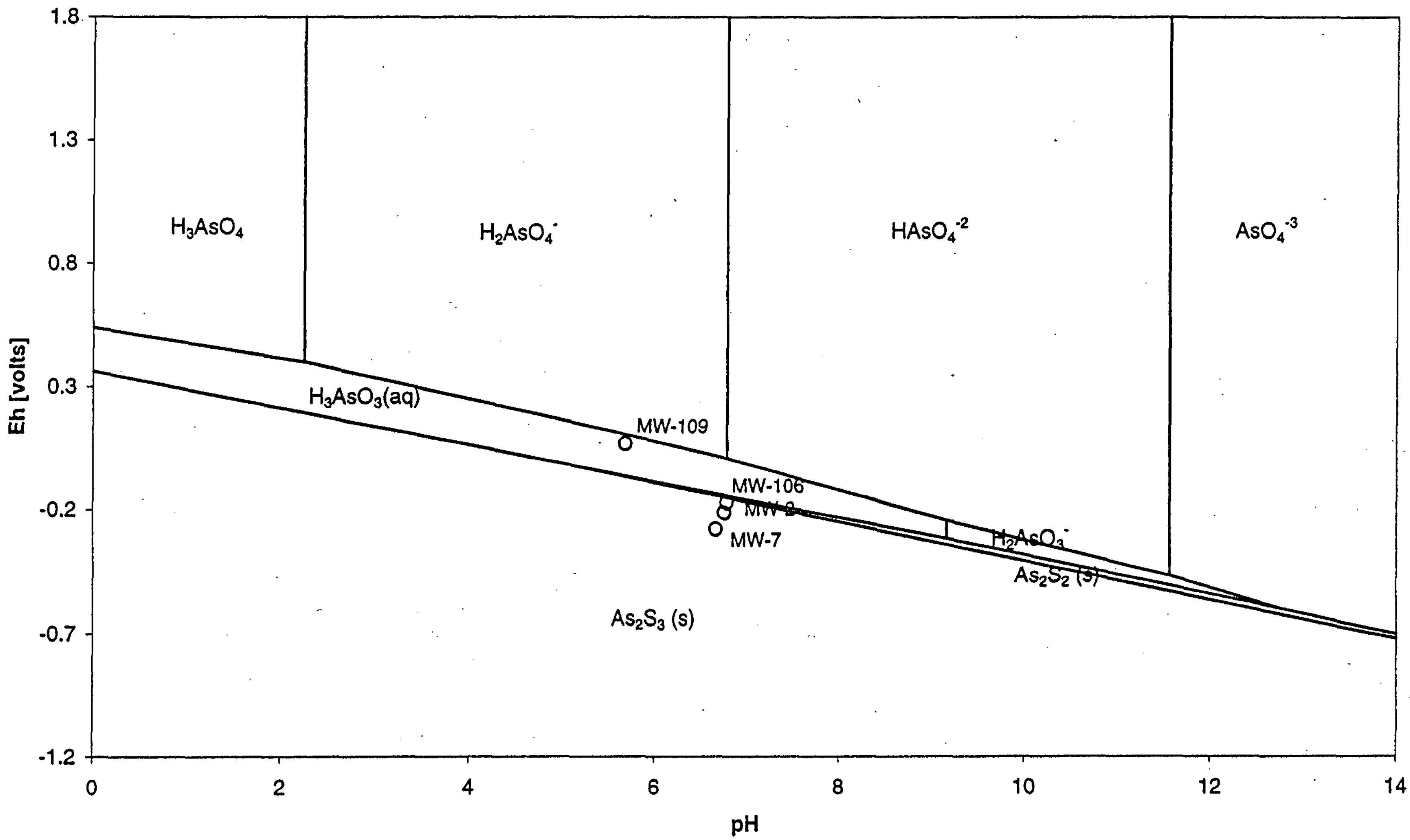
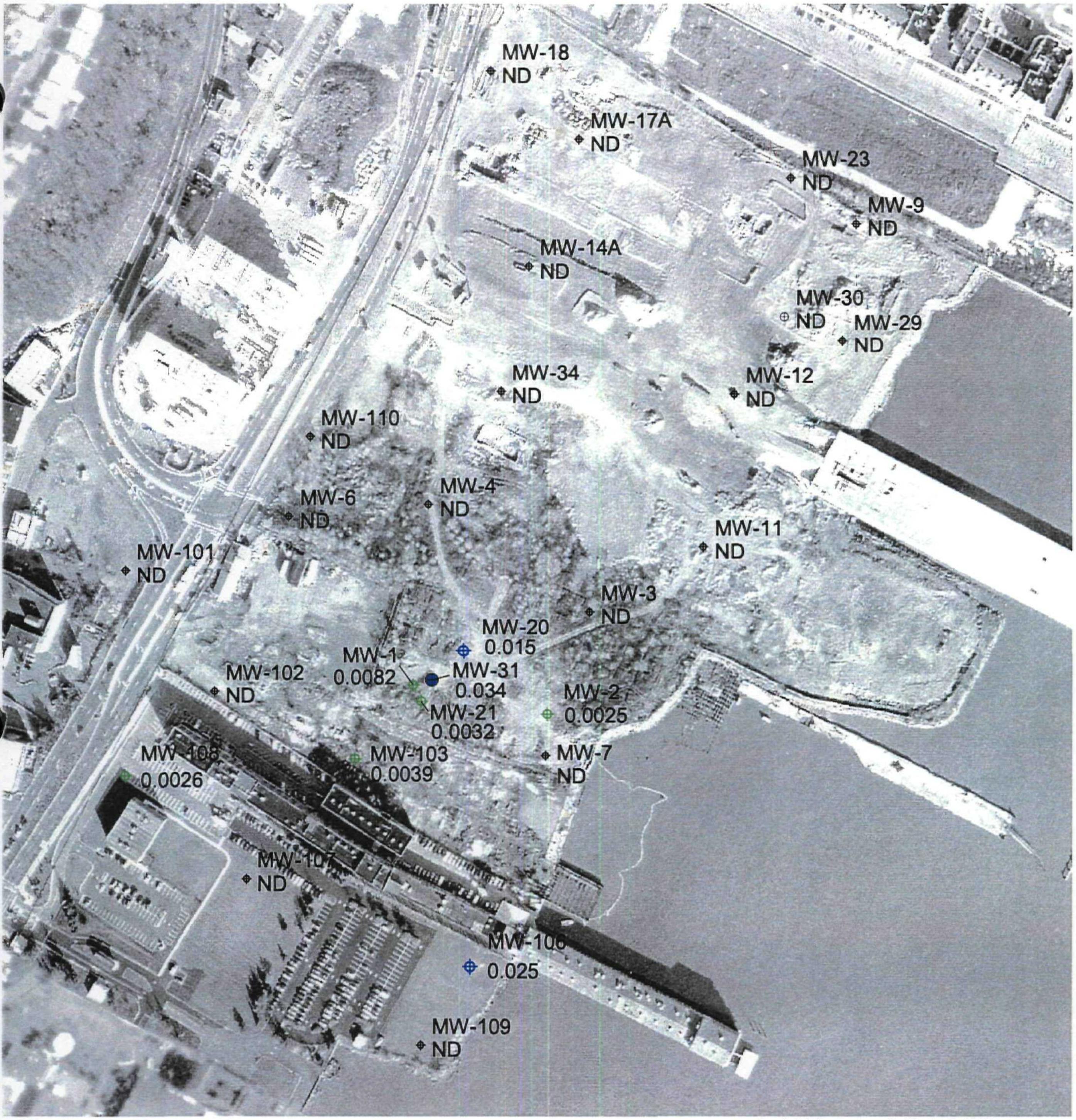


Figure 6-18
Arsenic Eh-pH Diagram in the Presence of Sulfur Species ([SO4]=1e-08)



CHROMIUM CONCENTRATIONS IN GROUNDWATER



Aerial Photograph Dated 1998

LEGEND

Chromium Concentration in Groundwater [mg/L]	
Above Confining Unit	Below Confining Unit
ND	ND
0 - 0.01	0 - 0.01
0.01 - 0.034	0.01 - 0.034

N

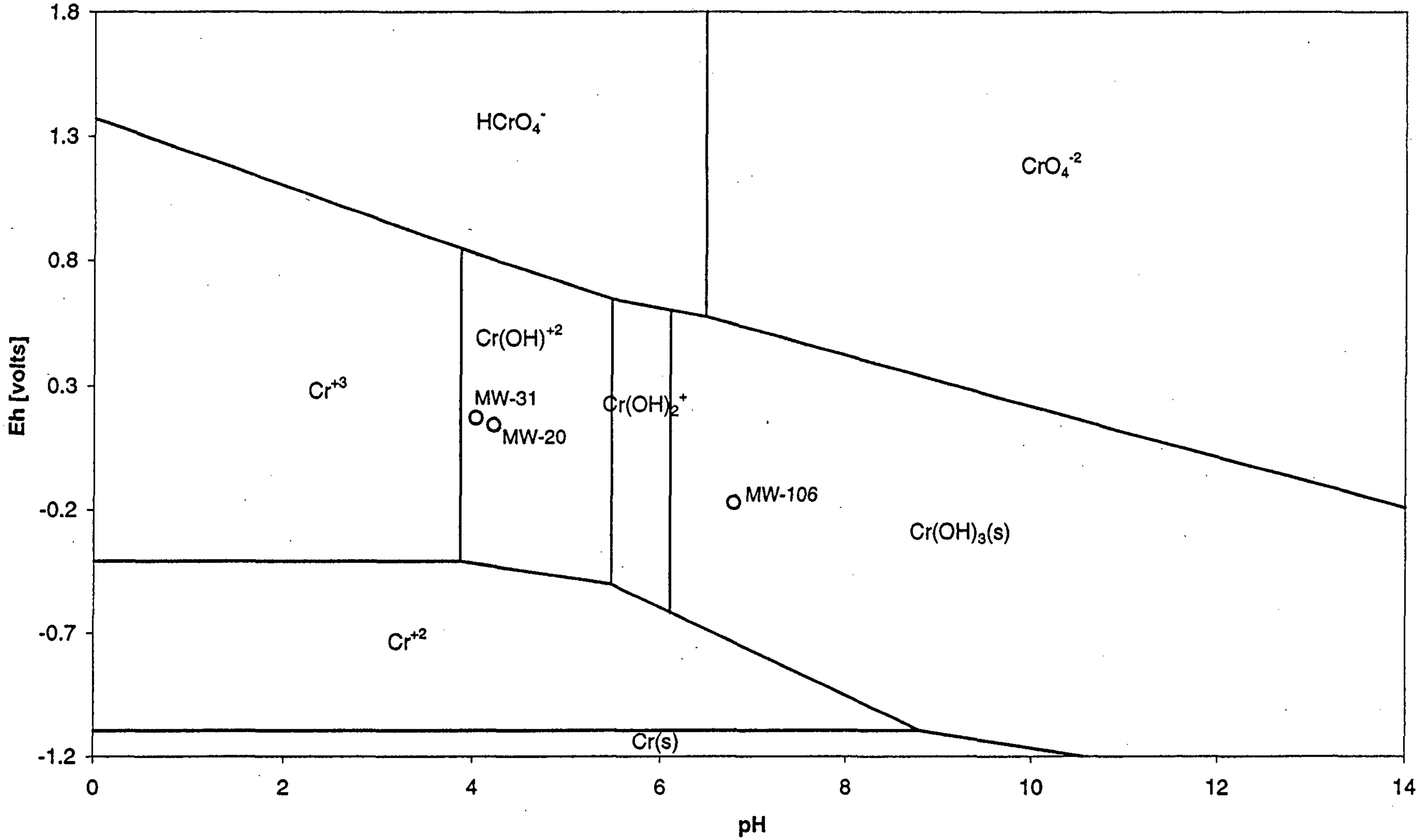
150 0 150 300 Feet

GEOSYNTEC CONSULTANTS
ATLANTA, GEORGIA

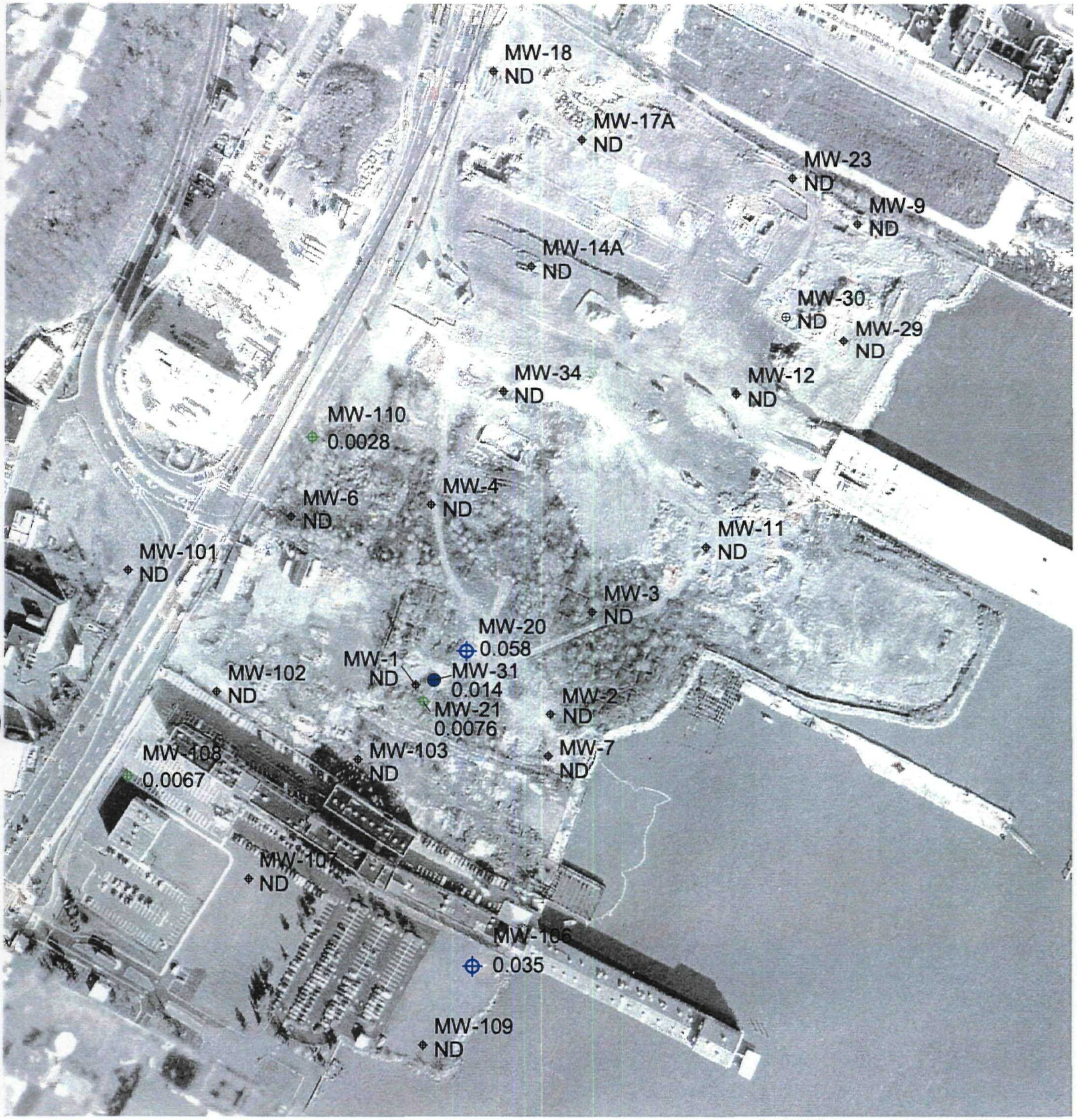
FIGURE NO.	6-19
PROJECT NO.	GL0520
DOCUMENT NO.	GA000168
FILE NO.	GW.APR

N:\QUANTA\RSI\REVSION_1\FIGURES\GW.APR

Figure 6-20
Chromium Eh-pH Diagram (Activity=6.5e-07M = 0.034 mg/L)



LEAD CONCENTRATIONS IN GROUNDWATER



Aerial Photograph Dated 1998

LEGEND

Lead Concentration in Groundwater [mg/L]	
Above Confining Unit	Below Confining Unit
ND	ND
0 - 0.01	0 - 0.01
0.01 - 0.058	0.01 - 0.058

N

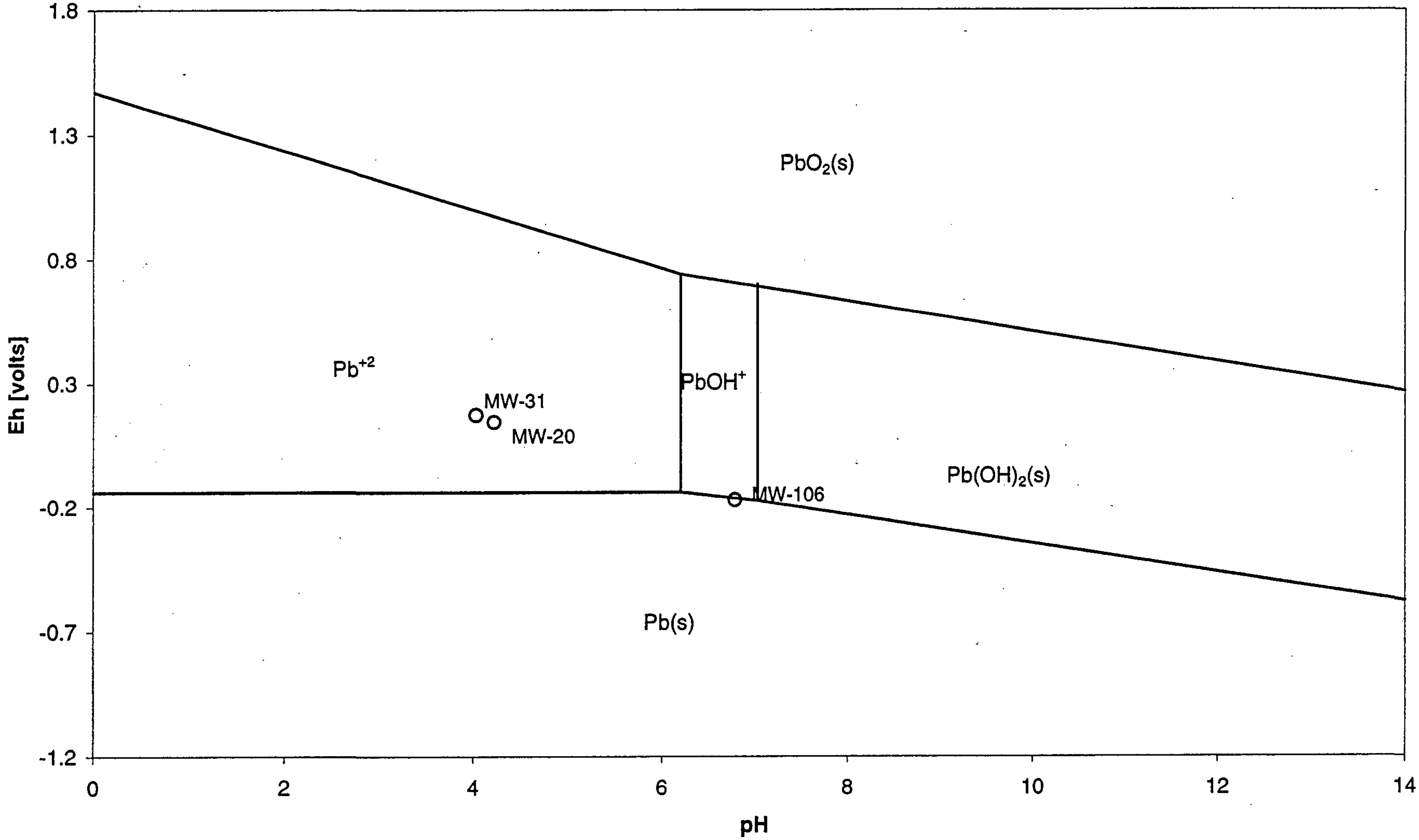
150 0 150 300 Feet

GEOSYNTEC CONSULTANTS
ATLANTA, GEORGIA

FIGURE NO.	6-21
PROJECT NO.	GL0520
DOCUMENT NO.	GA000168
FILE NO.	GW.APR

N:\QUANTA\RSI\REVSION_1\FIGURES\GW.APR

Figure 6-22
Lead Eh-pH Diagram (Activity=2.8e-07M = 0.058 mg/L)



APPENDIX A

PROPERTY BOUNDARY SURVEY

All those certain pieces or parcels of land, situate and lying in the Borough of Edgewater, Bergen County, New Jersey, bounded and described as follows:

Tract I:

Beginning at a disk set in the easterly line of River Road (variable width right-of-way), said Point of Beginning being on the third course of the original tract of land in Deed Book 5880, Page 286 and having coordinates in the New Jersey State Plane System of Coordinates, 1927 datum, of N719445.290, and E2186940.313;

Thence S20°29'14"W, along lands now or formerly of Edgewater Associates, Block 92 Lot 3, a distance of 28.99 feet to a rebar with a cap;

Thence S69°30'46"E, continuing along lands of Edgewater Associates, a distance of 327.45 feet to a disk set;

Thence S20°29'14"W, continuing along lands of Edgewater Associates, a distance of 244.92 feet to a disk set:

Thence S69°30'46"E, continuing along lands of Edgewater Associates, a distance of 46.00 feet to a disk set:

Thence S18°14'14"W, continuing along lands of Edgewater Associates, a distance of 31.46 feet to a disk set;

Thence S71°45'46"E, continuing along lands of Edgewater Associates, a distance of 870.61 feet to point;

Thence S63°30'16"E, continuing along lands of Edgewater Associates and passing over the Bulkhead Line approved by the Secretary of War on January 13, 1931 at a distance of 301.05 feet, a total distance of 735.27 feet to a point in the Pierhead Line approved by the Secretary of War on January 13, 1931;

Thence S28°33'31"W, along the Pierhead Line, a distance of 310.02 feet to a point therein;

Thence N63°22'15"W, leaving said Pierhead Line and passing over the Bulkhead Line at a distance of 440.07 feet, a total distance of 1344.76 feet to a P.K. nail set;

Thence N56°54'45"W, along lands now or formerly of Thomas Heagney, Block 96 Lot 3.01, a distance of 698.07 feet to a disk set in the easterly line of the aforementioned River Road;

Thence N31°56'18"E, along the easterly line of River Road, a distance of 59.69 feet to a disk set;

Thence N41°46'19"E, continuing along the easterly line of River Road, a distance of 76.12 feet to a P.K. nail set;

Thence N31°56'18"E, continuing along the easterly line of River Road, a distance of 234.15 feet to the Point of Beginning.

Containing 13.354 Acres of land, more or less, of which 5.5 Acres is upland.

Said parcel also being known as Block 95 Lot 1 as shown on Tax Map 8 of the Borough of Edgewater, Bergen County, New Jersey.

Bearings recited are New Jersey State Plane Grid, 1927 datum. Distances are ground distances.

Tract II:

Beginning at a point in the southerly line of Block 92.01 Lot 1.01, said Point of Beginning being the Point of Beginning for the original tract of land in Deed Book 5880, Page 286 and having coordinates in the New Jersey State Plane System of Coordinates, 1927 datum, of N719593.148, and E2186759.837;

Thence S69°30'46"E, along the southerly line of Block 92.01 Lot 1.01 and the first course of said original tract, a distance of 93.99 feet to a point in the westerly line of River Road;

Thence along the westerly side of River Road (variable width right-of-way) and the northerly side of Gorge Road (variable width right-of-way), along a non-tangent curve to the right, having a radius of 90.00 feet, an arc length of 117.53 feet, a chord bearing of S84°47'37"W, and a chord distance of 109.36 feet to a point in the eighteenth course of said original tract;

Thence N25°58'45"E, along the eighteenth course of said tract and the easterly line of Block 92.01 Lot 2, a distance of 47.63 feet to the Point of Beginning.

Containing 0.083 Acres of land, more or less.

Said parcel also being known as Block 92.01 Lot 1.03 as shown on Tax Map 8 of the Borough of Edgewater, Bergen County, New Jersey.

Bearings recited are New Jersey State Plane Grid, 1927 datum. Distances are ground distances.

Tract III:

Beginning at a point in the southerly line of Gorge Road (variable width right-of-way), said Point of Beginning being on the sixteenth course of the original tract of land in Deed Book 5880, Page 286 and having coordinates in the New Jersey State Plane System of Coordinates, 1927, datum of N719446.255, and E2186686.033;

Thence S36°07'39"E, along the southerly line of Gorge Road, a distance of 25.78 feet to a point of curvature;

Thence along the southerly line of Gorge Road and the westerly line of River Road (variable width right-of-way) along a curve to the right having a radius of 90.00 feet and an arc length of 102.06 feet to a point of tangency;

Thence S28°50'50"W, along the westerly line of River Road, a distance of 144.78 feet to a point;

Thence N56°54'45"W, along the thirteenth course of said original tract and the northerly line of Block 93 Lot 3.04, a distance of 61.79 feet to a point on a curve;

Thence along a non-tangent curve to the right having a radius of 792.00 feet, an arc length of 3.34 feet, a chord bearing of N25°51'30"E, and a chord distance of 3.34 feet to a point of tangency;

Thence N25°58'45"E, along the fourteenth course of said original tract, a distance of 100.76 feet to a point;

Thence N71°59'55"W, along the fifteenth course of said original tract, a distance of 2.02 feet to a point;

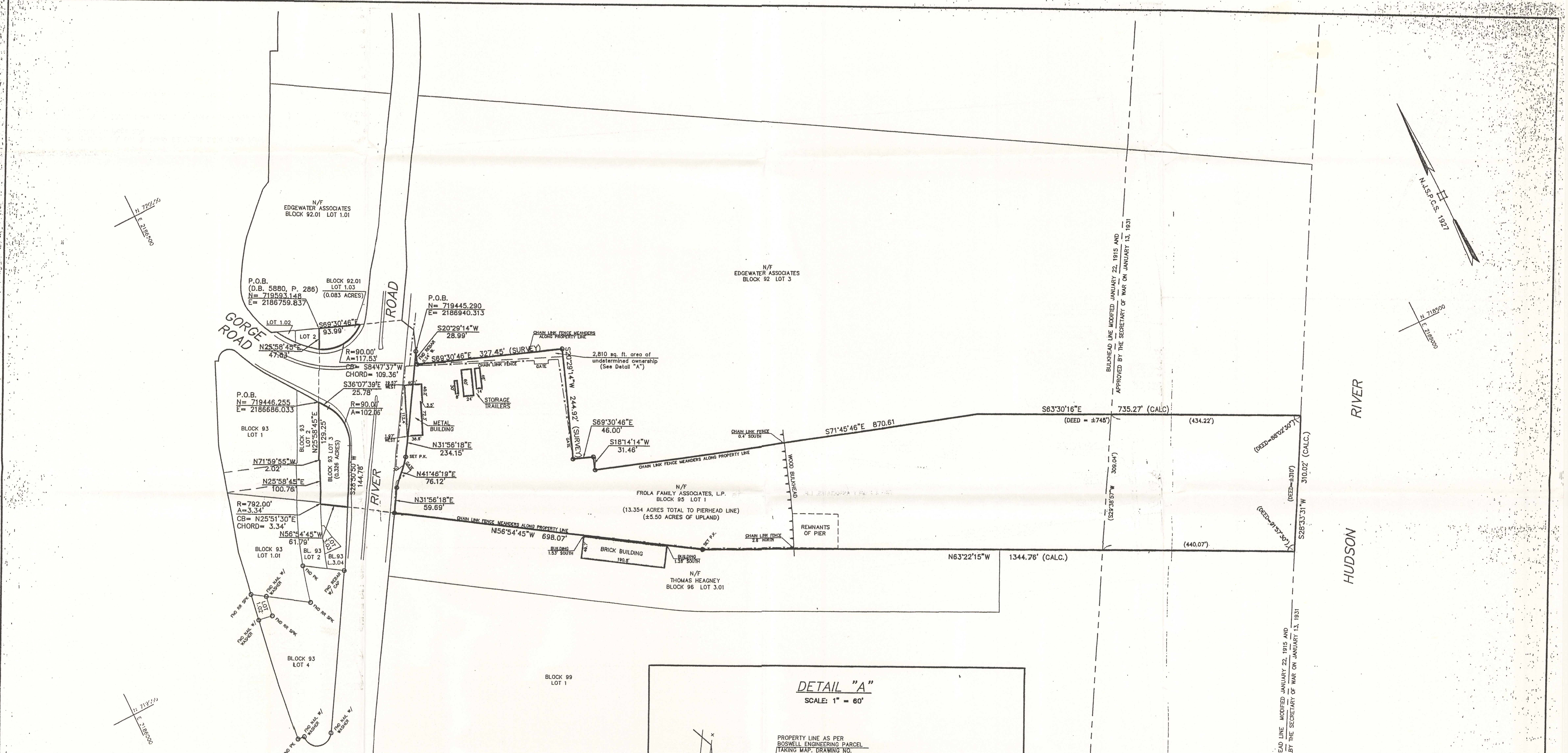
Thence N25°58'45"E, along the sixteenth course of said original tract, a distance of 129.25 feet to the Point of Beginning.

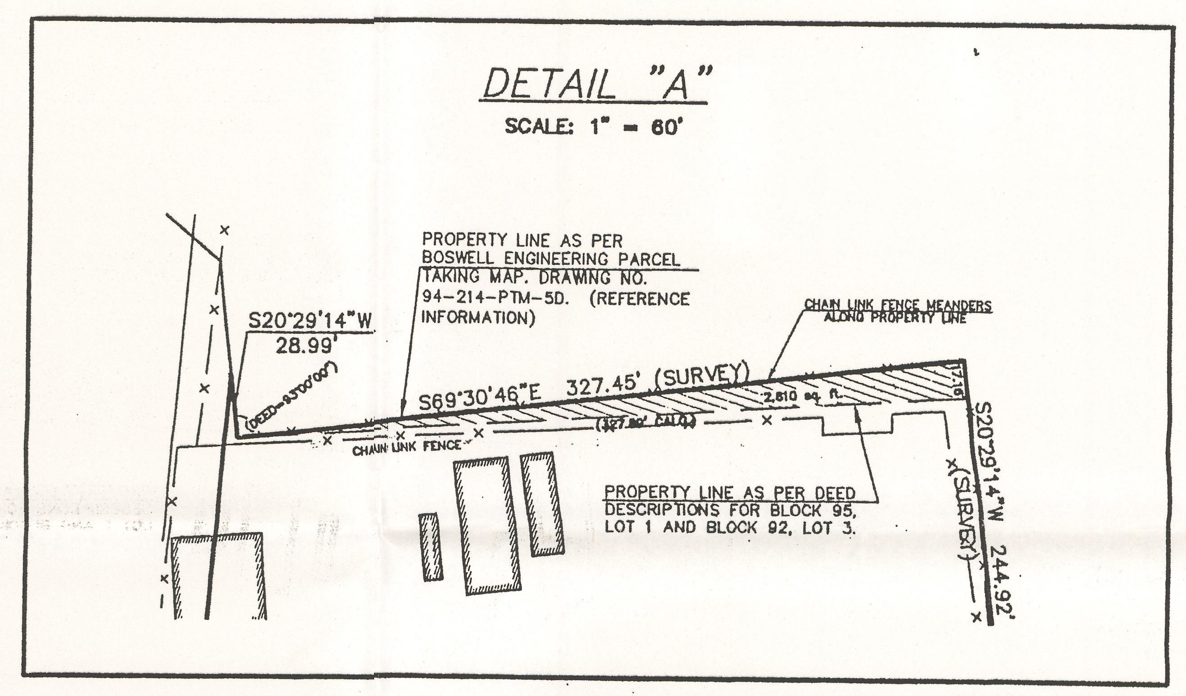
Containing 0.326 Acres of land, more or less.

Said parcel also being known as Block 93 Lot 3 as shown on Tax Map 8 of the Borough of Edgewater, Bergen County, New Jersey.

Bearings recited are New Jersey State Plane Grid, 1927 datum. Distances are ground distances.

Paul J. Emilius, Jr. N.J.P.L.S. LIC. No. 37186 SEAL





REFERENCE INFORMATION:

1. Block 95, Lot 1; Block 93, Lot 3; Block 92.01,Lot 1.03: Frola Family Associates, L.P., D.B.5880 Page 286.

2. Block 93, Lot 1; Block 92.01, Lots 1.02 & 2: Frola Family Associates, L.P., D.B. 7906 Page 530.

3. Parcels are subject to a street widening in D.B. 7846 Page 44 and D.B. 7857 Page 483.

4. Map titled: " Pierhead and Bulkhead Lines, Hudson River, N.Y. & N.J., West New York to Edgewater, N.J., W. 62nd St. to W. 116th St., N.Y. City" Dated: June 1941.

5. Tax maps 8 and 9 of the Borough of Edgewater, Bergen County, New Jersey, Dated: November 1959.

6. Survey prepared by Boswell Engineering titled: "Parcel Taking Map, Lots 1 & 2 - Block 93: Lots 1 & 1.01 - Block 95, Tax Assessment Map, Lands of: James V. Frola, Borough of Edgewater, Bergen County, New Jersey", Dated: December 14, 1995, Drawing No. 94-214-PTM-5D, Sheet 1 of 1.

7. Survey prepared by Boswell Engineering titled: "Boundary Survey, Tax Map Lot 4 Block 93, Borough of Edgewater, Bergen County, New Jersey", Dated: January 7, 1999, Drawing No. 99-103-S, Sheet 1 of 1.

NOTES:

1. Block 95 Lot 1: Total Area= 13.354 Ac. (581,700 sq. ft.)
(±5.50 Ac. of upland) (See Detail "A")
Block 92.01 Lot 1.03: Total Area= 0.083 Ac. (3,608 sq.ft.)
Block 93 Lot 3: Total Area= 0.326 Ac. (14,206 sq. ft.)

2. This survey is subject to any easements of record or other pertinent facts, which a complete, accurate, and current title search might disclose.

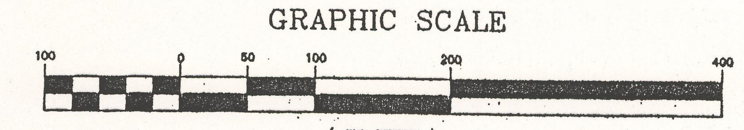
3. Coordinates are based on the New Jersey State Plane System of Coordinates, 1927 datum.

4. Property corner monumentation consists of a rebar with a GEOD disk, unless otherwise noted.

5. The property is subject to riparian claims by the State of New Jersey.

6. The undersigned is not qualified to make any determination as to the existence or non-existence of wetlands or contamination affecting this survey. Therefore, no statement is being made or implied nor should it be construed that any statement is being made by the fact that no evidence of wetlands or contamination is shown.

GRAPHIC SCALE



(IN FEET)
1 inch = 100 ft.

REVISIONS

GEOD
SURVEYING & AERIAL MAPPING
Executive Office
16-24 Kanouse Road, Newfoundland, New Jersey 07435

BOUNDARY SURVEY
OF BLOCK 95 LOT 1,
QUANTA RESOURCES SITE
PREPARED FOR
GEOSYNTEC CONSULTANTS

TOWN OF EDGEWATER BERGEN COUNTY NEW JERSEY

PAUL J. EMILIUS JR. P.L.S.
Lic. No. 37186

DRAWN BY:	CHECKED BY:	SCALE:	DATE:	PROJ. NO.:
R.J.O.	R.M.G.	1"=100'	SEPTEMBER 13, 1999	1590

APPENDIX B

GEOPHYSICAL SURVEY

Electromagnetic (EM) Conductivity

The electromagnetic (EM) conductivity method is a non-ground contacting method of determining the electrical conductivity of the subsurface. The principle of operation of EM is the induction of an EM signal of known frequency into the subsurface through a transmitting coil. A receiver coil, a known distance away, monitors the resultant signal. The measuring instrument compares the transmitted and received signals and produces an output voltage that is proportional to the subsurface conductivity. Both in-phase and out-of-phase portions of the received signal are measured. The out-of-phase component is related to the apparent conductivity and the in-phase signal is related to the presence of conductive bodies, typically buried metallic objects such as tanks, pipes, drums, etc.

The conductivity measured, known as the apparent conductivity, is a weighted average of the various subsurface conductivities encountered. The effect is not linear with depth, but is dependent upon subsurface layer conductivities and thicknesses as well as coil geometry. The depth of penetration for a given subsurface conductivity distribution is determined primarily by the separation of the transmitting and receiving coils, and secondarily by the axial relationship of the two coils. The EM technique may be affected by cultural "noise" such as fences, power lines, metallic debris, etc. If there is too much cultural "noise", no useful data can be collected. Changes in apparent conductivity related to cultural factors can generally be separated from those due to lithologic or pore fluid changes by the fact that cultural "noise" causes relatively short-spaced and large-amplitude fluctuations in the in-phase component.

For relatively shallow surveys, a Geonics EM31 conductivity meter with a digital recorder is used. The EM31 is a portable instrument designed for shallow geophysical applications and has a fixed intercoil spacing which has a depth of penetration on the order of 10 to 15 feet. When the EM31 is connected to a digital recorder, an apparent conductivity reading, percent of in-phase response, and station location are recorded at regular intervals. Buried metallic objects may be located by excursions of the in-phase component from a "background" level. Changes in the apparent conductivity can be caused by conductive leachate, lithologic changes, etc.

EM61

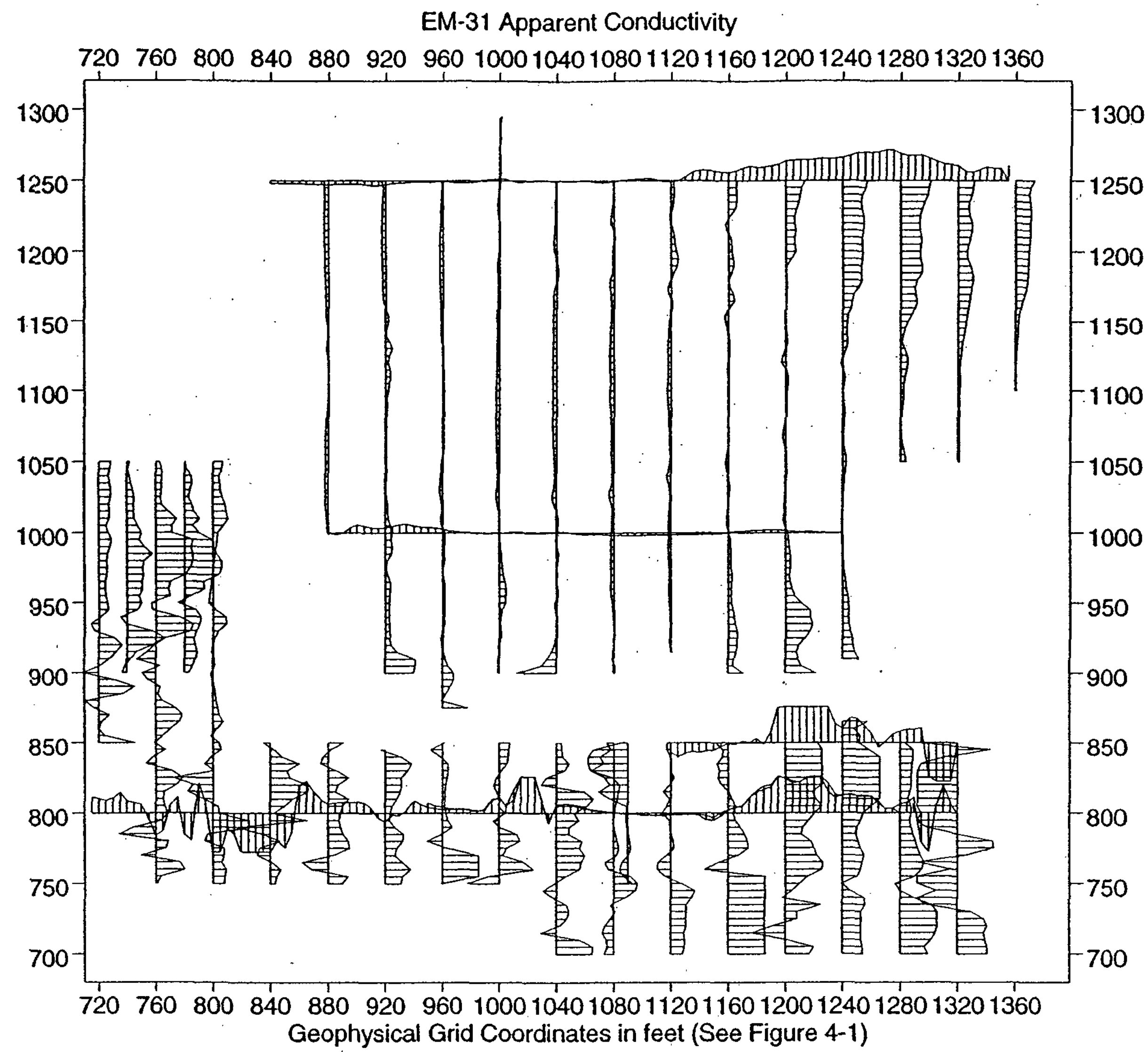
The EM61 is a high-sensitivity metal detector manufactured by Geonics, Ltd. This instrument is designed to detect buried metal directly beneath it and yet be insensitive to interference from nearby surface metal such as fences, buildings, cars, etc. The EM61 generates a pulsed primary magnetic field that induces eddy currents in nearby metallic objects. Two receiver coils at different distances from the ground measure the decay of the eddy currents with time. The measuring instrument compares the transmitted and received signals and produces an output voltage related to the presence of metallic objects.

The response is not linear with depth, but is dependent upon several factors such as the size, shape, and depth of the metallic object. The EM61 can detect both ferrous and nonferrous metallic objects. The EM61 may be affected by cultural "noise" such as fences, power lines, metallic debris, etc. within a five to ten foot radius.

The EM61 is connected to a digital data recorder and the data from both channels are stored along with the line number and station numbers. The data are recorded in one of three modes. The first mode is to record at regular times with the station location determined by event markers entered by the operator. The second mode allows the operator to record data at specified distances while the station location is updated by the recorder. The third mode involves attaching wheels to the transmitter/receiver that automatically triggers the recorder at specific intervals along the survey line. Readings are usually close together (less than one foot apart).

Buried metallic objects are identified by increased readings from either channel. The readings are not affected by nonmetallic conductive targets such as saltwater or conductive plumes. While recording data in the field, the operator can identify buried targets by listening to an audio speaker that has a response proportional to the signal output.

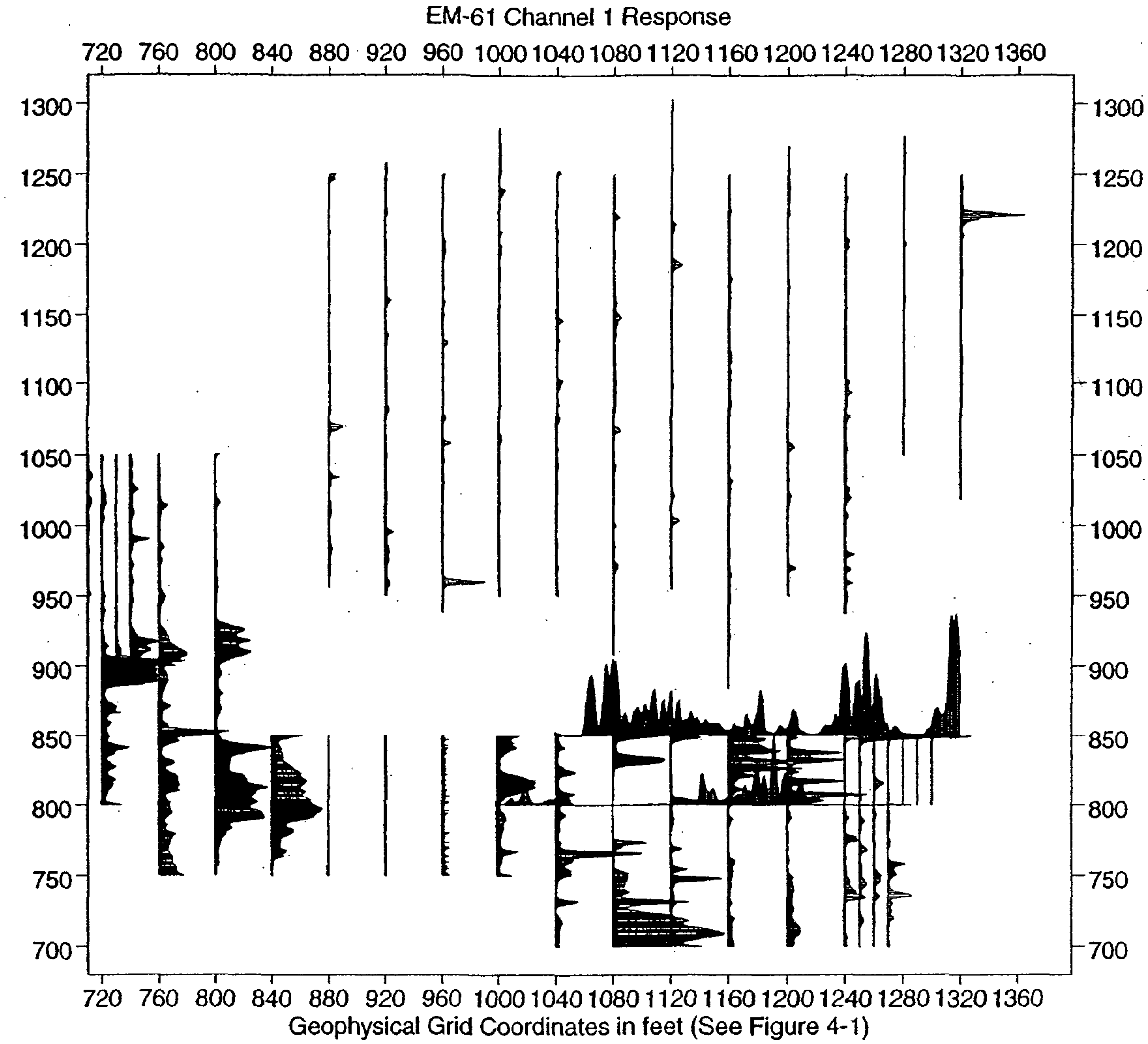
After data have been recorded, they are downloaded and processed using the DAT61 computer software supplied by Geonics, Ltd. Further processing and plotting is accomplished using other software.



Data Scale:

Baseline = 50 mS/m

= 400 mS/m

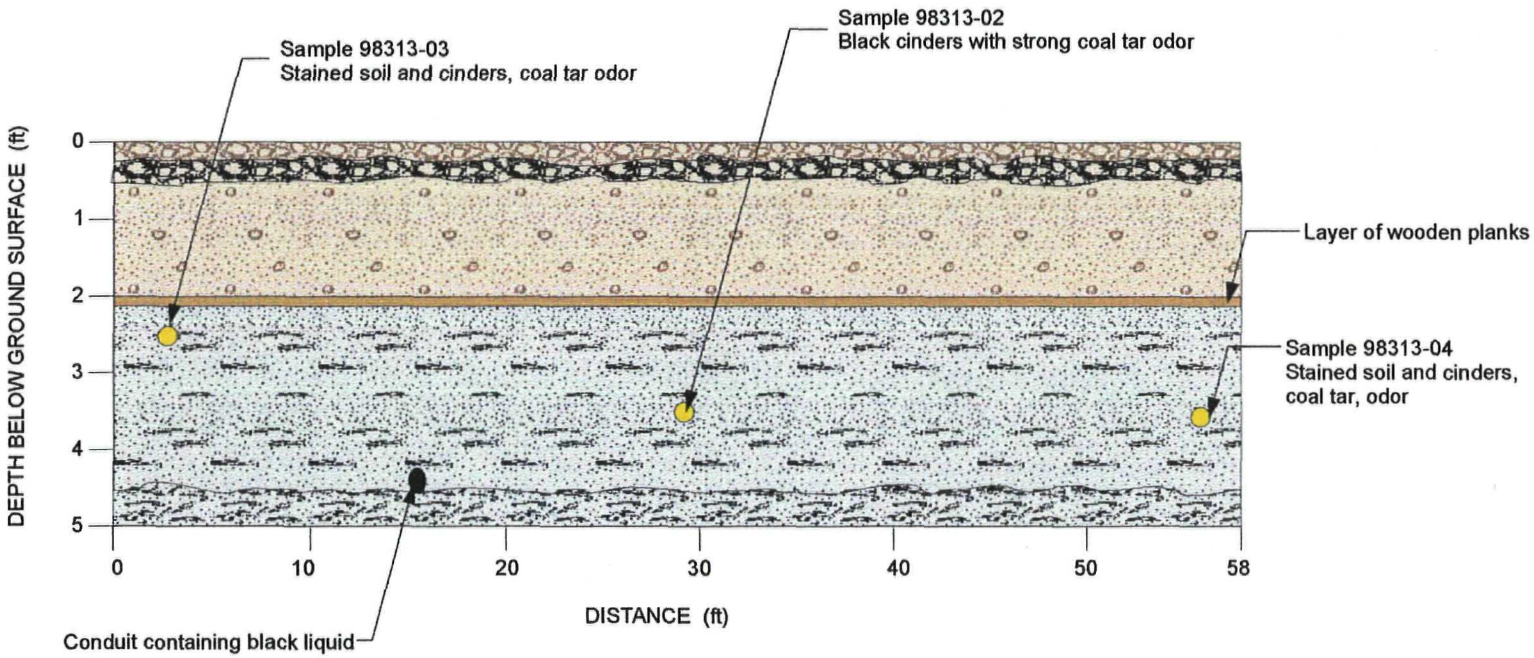


Data Scale:
Baseline = 0 mV
⊢⊣ = 4000 mV

APPENDIX C

TEST TRENCH LOGS

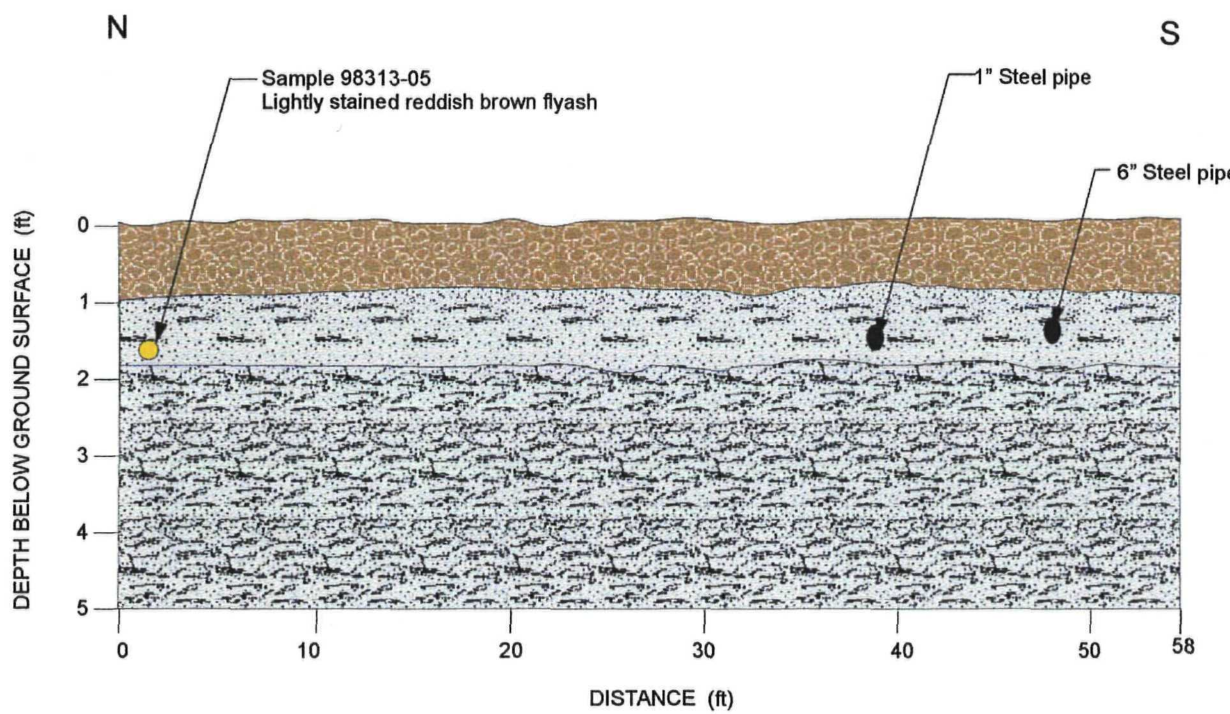
TEST TRENCH 1
EXCAVATED: 9 NOV. 1998



LEGEND

- Gravel fill
- Gravel fill containing coal tar
- Brown clayey soil, some large rocks
- Heavily stained soil, coal tar odor and cinders
- Heavily stained soil with some oil-like coal tar,coal tar odor

TEST TRENCH 2
EXCAVATED: 9 NOV. 1998



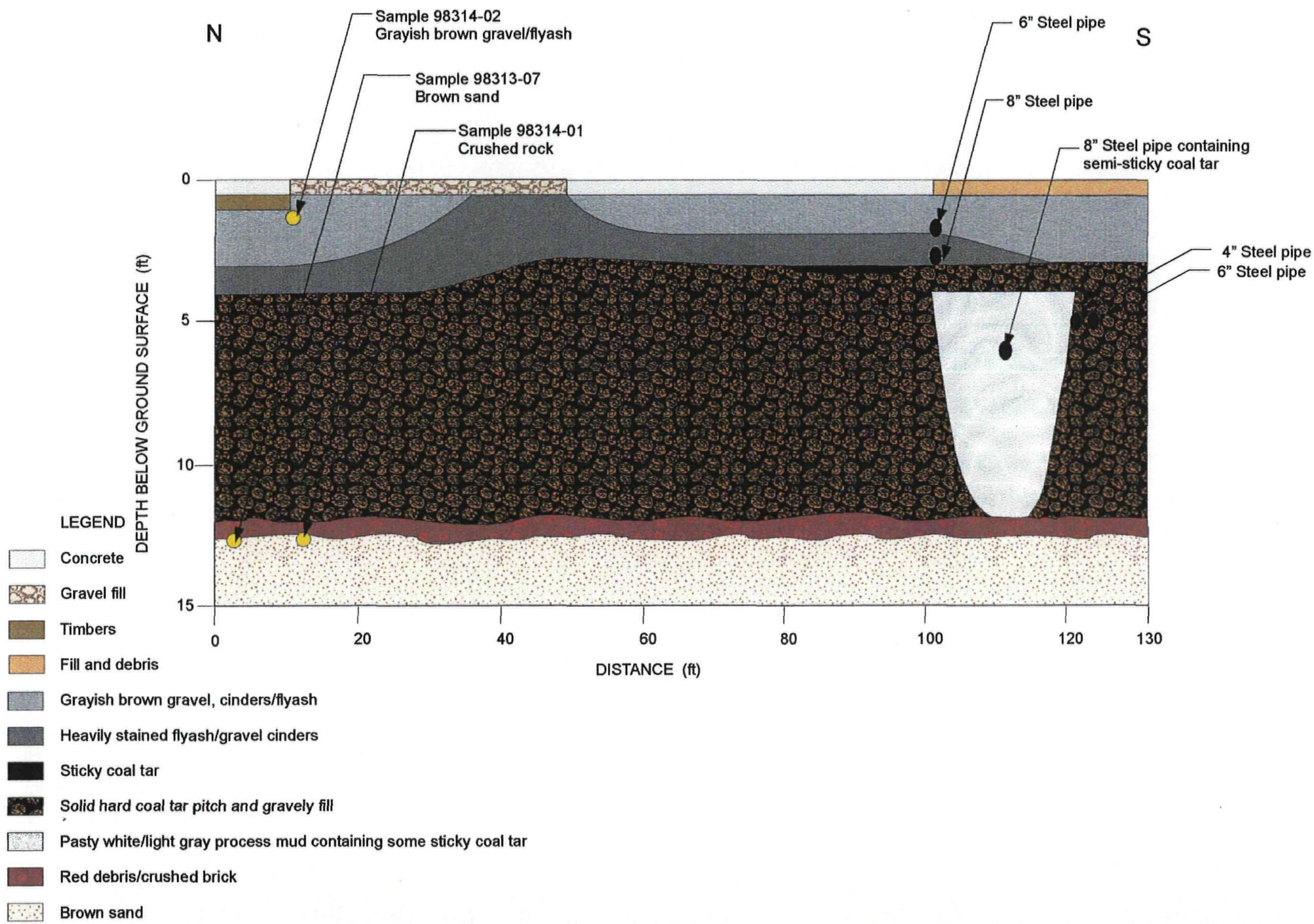
LEGEND

Crush rock and dark brown soil

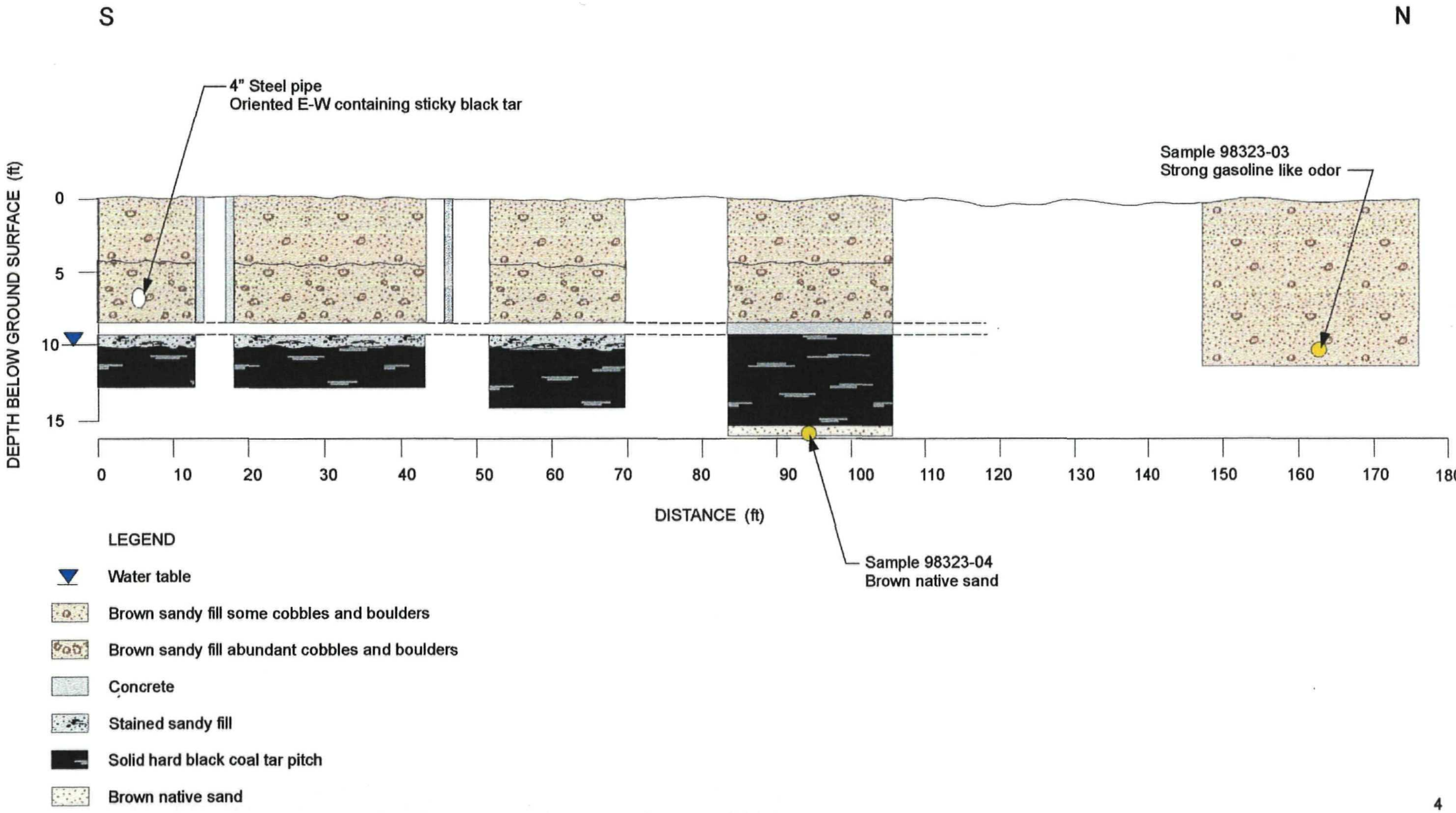
Lightly stained soil and flyash

Heavily stained black soil, and debris (wood and rocks)

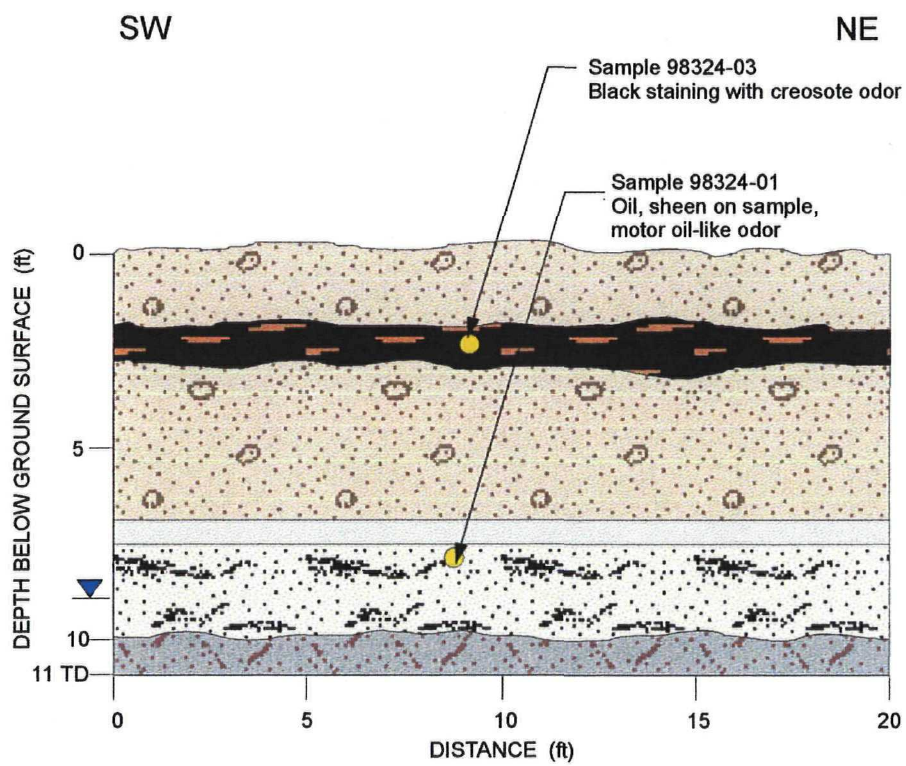
TEST TRENCH 3
EXCAVATED: 9 & 10 NOV. 1998



TEST TRENCH 4
EXCAVATED: 19 NOV. 1998



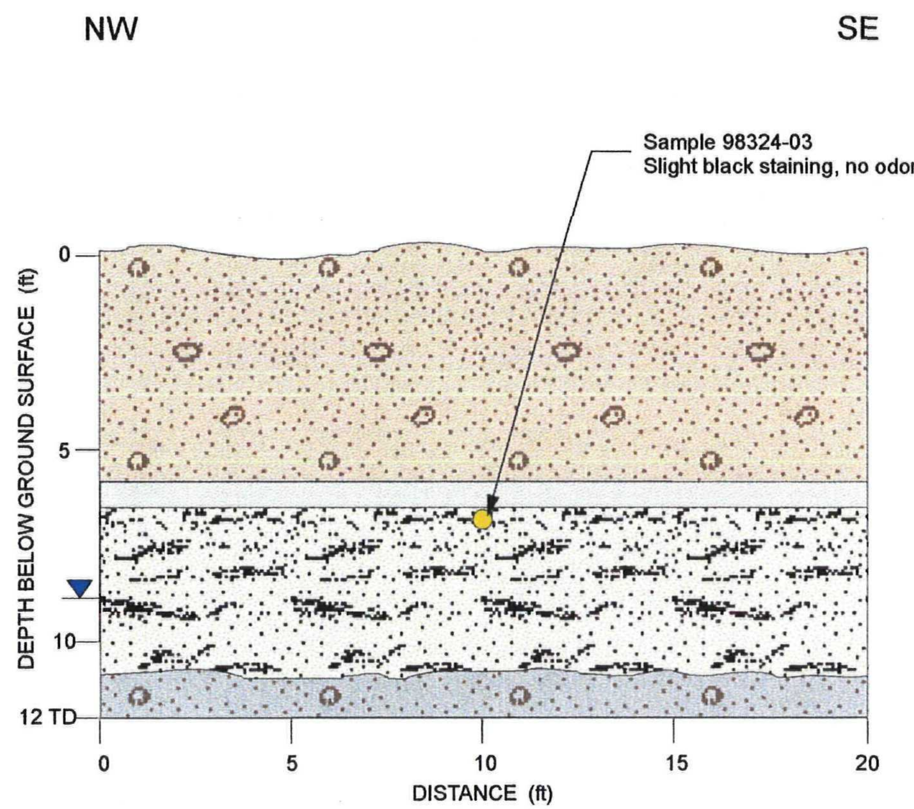
TEST TRENCH 5
EXCAVATED: 20 NOV. 1998



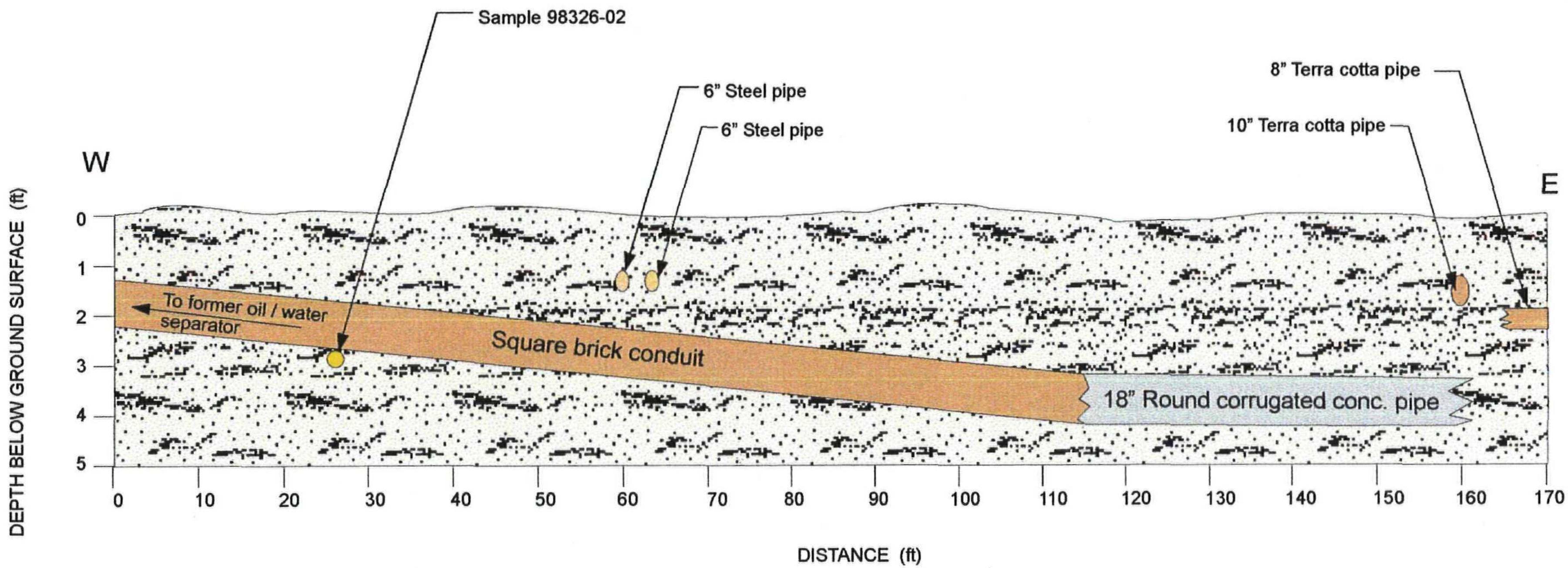
LEGEND

- Water table
- Brown sandy fill some cobbles and boulders
- Black stained fill with wood chunks
- Concrete
- Sandy fill with black staining motor oil type odor
- Gray sandy silty marsh clay with root mat
- Gray native sand with shell fragments

TEST TRENCH 6
EXCAVATED: 20 NOV. 1998



TEST TRENCH 7
EXCAVATED: 22 N0V. 1998

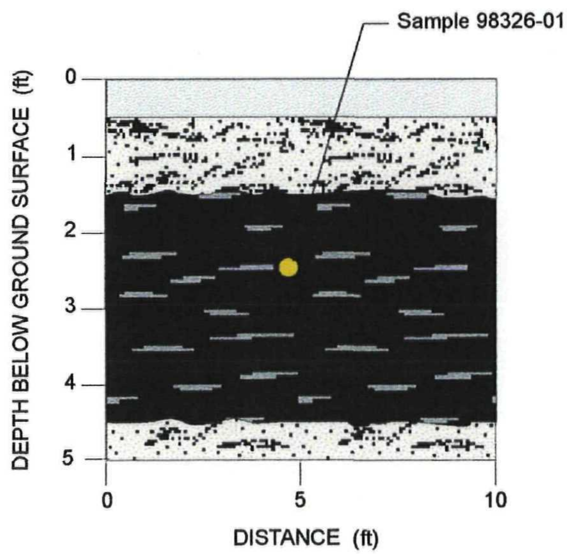


LEGEND

Sandy fill with black staining and strong petroleum hydrocarbon odor

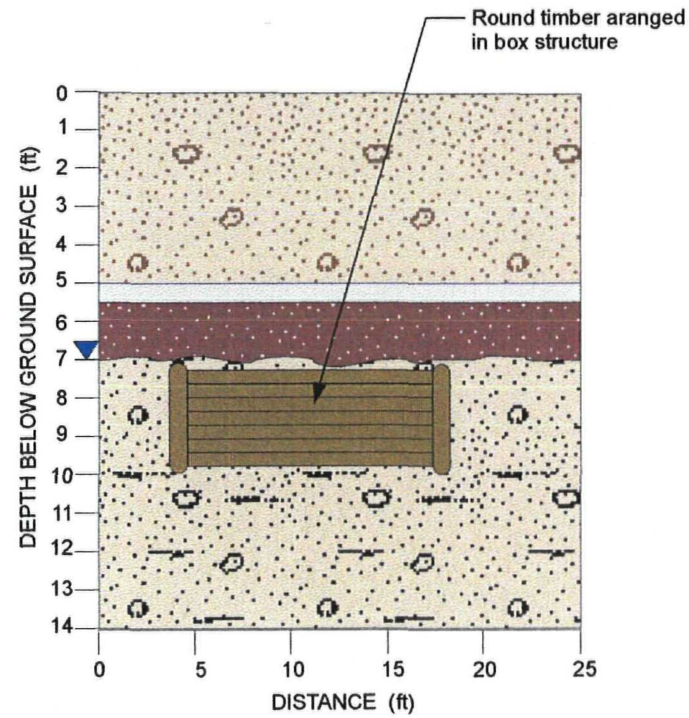
TEST TRENCH 8
EXCAVATED: 22 NOV. 1998

S N



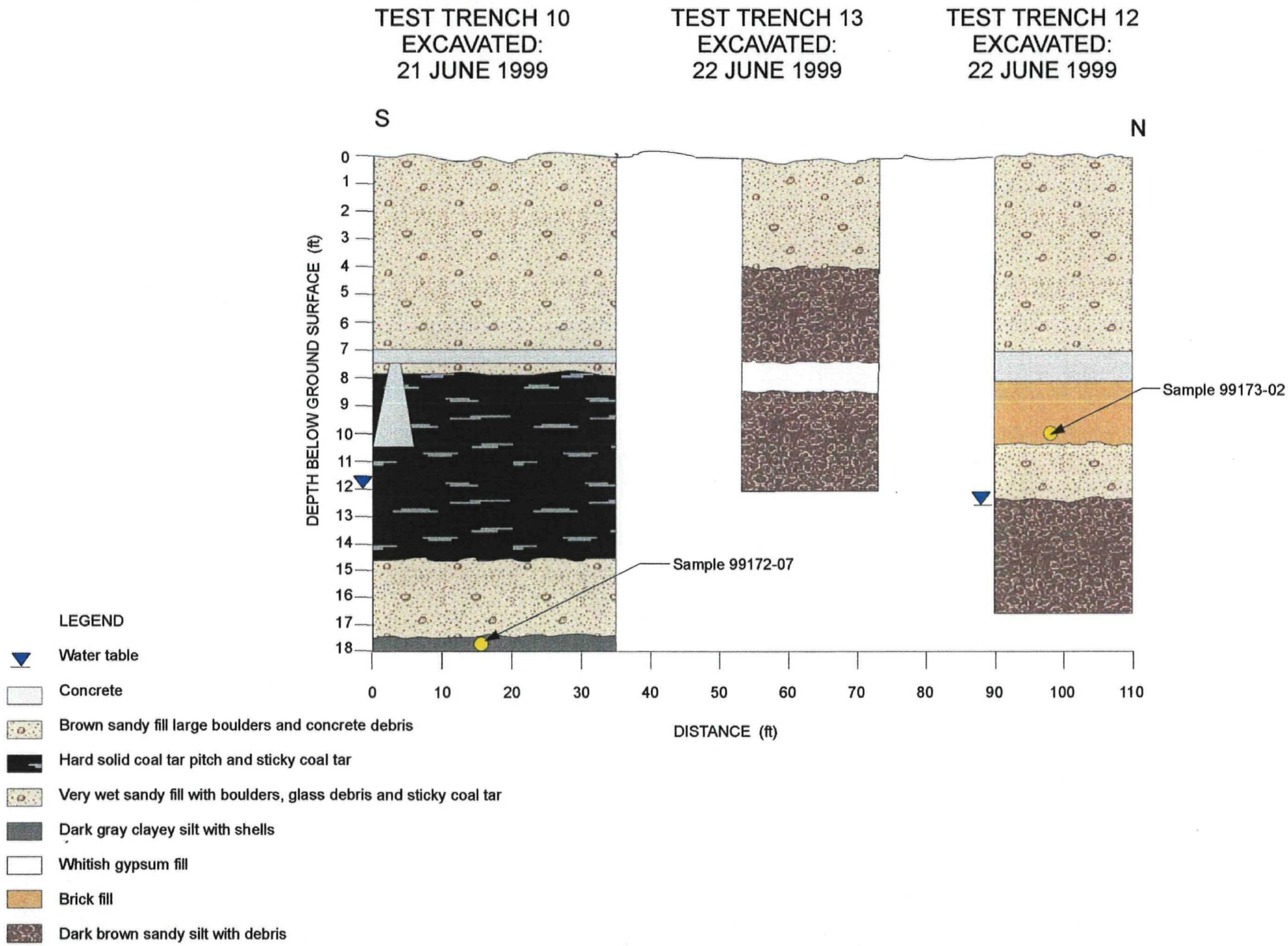
TEST TRENCH 9
EXCAVATED: 21 NOV. 1998

W E



LEGEND

- Water table
- Concrete
- Sandy fill with black staining and some oil-like coal tar
- Solid hard black coal tar pitch with some heavily stained sandy fill containing sticky coal tar
- Sandy fill with black staining
- Brown sandy fill with large boulders
- Dark brown sandy fill
- Gravel fill with large boulders, wet, stained black, some sticky coal tar


TEST TRENCH 10
EXCAVATED:
21 JUNE 1999
TEST TRENCH 13
EXCAVATED:
22 JUNE 1999
TEST TRENCH 12
EXCAVATED:
22 JUNE 1999
S
N
DEPTH BELOW GROUND SURFACE (ft)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
Sample 99173-02
Sample 99172-07
0
10
20
30
40
50
60
70
80
90
100
110
DISTANCE (ft)
LEGEND
Water table
Concrete
Brown sandy fill large boulders and concrete debris
Hard solid coal tar pitch and sticky coal tar
Very wet sandy fill with boulders, glass debris and sticky coal tar
Dark gray clayey silt with shells
Whitish gypsum fill
Brick fill
Dark brown sandy silt with debris

APPENDIX D

BORING LOGS

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520	BORING ID: B-1
LOCATION: B-1	N:718820.689 E:633488.549	GROUND ELEV.:13.592
DRILLING CO.: Diamond Drilling	RIG: Canterra CT-250	DRILLER: M. Kurzynowski
METHOD & DIAMETER: Mud Rotary,button/tri-cone bit		LOGGED BY: J. Brandes
DATE: STARTED- 06 Nov 98	COMPLETED- 06 Nov 98	CHECKED BY: E. Triplett

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	Blows/ 6 in.	Rec. (in.)	DRILLING LOG
13.6		FILL: brown, sandy, some small gravel, some silt.	13 28	6	0830: Commence drilling with 4.75 in ID button bit. @ 1 ft: split spoon refusal. @ 1.8 ft: stop, too much of angle. Offset and restart, drill to 2 ft.
			34 51 44 16	6	
8.6		@ 5 ft: some gray silt.	9 13 15 12	10	
		@ 7 ft: diabase boulder. @ 7.5 ft: brown, medium sand. @ 8 to 9.9 ft: boulder.	13 50/5	6	@ 6 ft: spoon refusal. very difficult drilling. 0930: Switch to 6 in. tri-cone bit and 2-3/8 in. ID (3 in. OD) rods.
			66/2	2	
3.6			60/1	1	@ 9.9 ft: break through boulder. @ 10 ft: spoon refusal. sluff. @ 11 ft: oil sheen observed in mud slight coal tar odor, 0.0 ppm.
			100/1	0	
	14.0	GYPSUM FILL: trace small gravel, off-white to light gray, hard.			@ 14 to 51 ft: difficult drilling.
-1.4					
-6.4			50/4	0	@ 20 ft: spoon refusal.
-11.4					
-16.4					
	34.0	SANDSTONE CONGLOMERATE @ 34 ft: shale			
-21.4		@36 ft: trace silt.			
-26.4					1200: break for lunch.

N:\QUANTA\BORLOGS\B-1.PL3 MED-1 10-01-99

REMARKS:

GeoSyntec Consultants

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: B-1
LOCATION: B-1	N:718820.689	E:633488.549	GROUND ELEV.: 13.592
DRILLING CO.: Diamond Drilling	RIG: Canterra CT-250		DRILLER: M. Kurzynowski
METHOD & DIAMETER: Mud Rotary, button/tri-cone bit			LOGGED BY: J. Brandes
DATE: STARTED- 06 Nov 98	COMPLETED- 06 Nov 98		CHECKED BY: E. Triplett

N:\QUANTA\BORLOGS\B-1.PL3 MED-1 10-01-99

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SYMBOL	WELL DIAGRAM		Blows/ 6 in.	Rec. (in.)	DRILLING LOG
-26.4								1230: resume drilling
-31.4								
-36.4								
	51.0	Boring terminated at 51 ft.						1325: Terminate boring, plug and abandon. Grout mixture: 7 gal. water to 1 bag (94 lbs.) type I portland cement and 5 lbs. bentonite.
-41.4								
-46.4								
-51.4								
-56.4								
-61.4								
-66.4								

REMARKS:

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: B-2
LOCATION: B-2	N:719116.000	E:633539.617	GROUND ELEV.: 11.476
DRILLING CO.: Diamond Drilling	RIG: Canterra CT-250		DRILLER: M. Kurzynowski
METHOD & DIAMETER: Mud Rotary;button/tri-cone bit			LOGGED BY: J. Brandes
DATE: STARTED- 09 Nov 98	COMPLETED- 11 Nov 98		CHECKED BY: E. Triplett

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SYMBOL	WELL DIAGRAM	Blows/ 6 in.	Rec. (in.)	DRILLING LOG
11.5		FILL: large boulders, brick, concrete, sand gravel, silt. @ 1 ft: brown, sandy soil.			10 refusal	2	0730: Commence drilling with 6 in. tri-cone bit (3 in. OD rods). No mud circulation, mud loss into boring.
		@ 3 ft: brown sandy soil with gravel.			19 32 refusal	6	Drive split spoon 1 ft. 0800: collect 98313-01 @ 3 - 4 ft. @ Sample FID =2 ppm (background).
6.5		@ 6 ft: sandy soil with gravel and brick debris.			10 100/4	6	Drive split spoon 10 in. refusal. FID = 20 ppm.
1.5		@ 11 to 14 ft: large diabase and sandstone boulders.			13 50/6 refusal	8	Drive split spoon 1 ft. refusal. Diabase/sandstone fragments, brick probably sluff. 0935: Rig head main seal breaks @ 11 ft. Drilling suspended for repairs. 10 Nov 98, 1000: Drilling resumes, using tri-cone 6.75" bit.
-3.5					4 5 4 3	0	@ 14 ft: break through boulder; easier drilling.
		@ 16 ft: silty.			2 6 5 4	3	
		@ 18 ft: brick debris.			6 WOR refusal	5	Drive split spoon to 19.5 ft. 1145 Break for lunch. 1245 Resume drilling; brick debris.
-8.5							
-13.5							Almost get mud circulation back.
					refusal	0	Drive split spoon. refusal. Brick, sandstone, concrete debris, sluff. Added revert to the boring to build viscosity in an attempt to seal off boring.
	29.0	Boring terminated at 29 ft.					1300: Terminate boring. 11 Nov. 98, 0700: plug and abandon boring. Grout Mixture: 7 gal. water to 1 bag (94 lbs.) type I portland cement and 5 lbs. bentonite.
-18.5							
-23.5							
-28.5							

REMARKS:

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TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: B-3
LOCATION: B-3	N:718520.653	E:633598.794	GROUND ELEV.:5.652
DRILLING CO.: Diamond Drilling	RIG: Canterra CT-250		DRILLER: M. Kurzynowski
METHOD & DIAMETER: Hollow Stem Auger/Mud Rotary			LOGGED BY: J. Brandes
DATE: STARTED- 11 Nov 98	COMPLETED- 13 Nov 98		CHECKED BY: E. Triplett

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ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SYMBOL	WELL DIAGRAM	Blows/ 6 in.	Rec. (in.)	DRILLING LOG
5.7		FILL: wood, coal tar, sand, silt, gravel. @ 4 in: 2" thick wood layer.			100/4	4	1310: Commence drilling. Drive split spoon. @ 4 in: wood, 2 in. thick; auger to 2 ft.
					15 7 6 5	2	
0.7		@ 4 ft: wood layer.			19 23 11 15	14	Wood, less staining above wood layer than below.
		@ 6 to 7 ft: coal tar, wood. @ 7 to 8 ft: sandy silt.			12 15 19 22	12	
		@ 8 ft: wood, coal tar.			7 12 15 17	10	
-4.3		@ 11 ft: coal tar. @ 11 to 12 ft: white/gray process waste.			18 22 17 5	16	
	12.5	SILTY CLAY: gray, plastic.			4 1 0 1	13	@12.5 ft: clayey silt. 1405: collect 98315-06 @ 13-14'.
-9.3					1 1/18"	24	Silt with clay. 1415: collect 98315-07 @ 14-15'. Terminate drilling for day, set up hole for mud rotary. 12 Nov. 98, 0710: continued drilling with mud rotary.
-14.3		@ 20 ft: silty clay with oyster shell fragments.			1 1 0 1	10	
-19.3		@ 25 ft: abundant oyster shells, silt, gray, trace of fine sand.			3 3 7 12	12	
							Hard drilling; shells.
-24.3		@ 31 ft: silty sand, brown, medium.			9 27 50/6 100/6	10	Oyster shells, sandstone fragments sand. @32 ft: wood, difficult drilling. Magnet put in screen, some very small metal filings were present.
		@ 32 to 26.5 ft: wood, oyster shells, sandstone fragments, metal, slight oil sheen. @ 33 ft: less wood in mud. @34.5 ft: additional wood present in mud.					@ 32.5 to 33.5 ft: very hard drilling (0.5 hr./ft).
-29.3	36.5	SANDSTONE CONGLOMERATE: weathered, oyster shells, some shale, fairly soft, hardening with depth, red.			100/4		@ 36.5 ft: break through hard layer penetrated into another hard layer. gravel, oyster shells.
-34.3							

REMARKS:

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: B-3
LOCATION: B-3	N:718520.653	E:633598.794	GROUND ELEV.: 5.652
DRILLING CO.: Diamond Drilling	RIG: Canterra CT-250		DRILLER: M. Kurzynowski
METHOD & DIAMETER: Hollow Stem Auger/Mud Rotary			LOGGED BY: J. Brandes
DATE: STARTED- 11 Nov 98	COMPLETED- 13 Nov 98		CHECKED BY: E. Triplett

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ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	Blows/ 6 in.	Rec. (in.)	DRILLING LOG
-34.3			16 50/2	12	Mostly sluff, red sandstone.
		@ 42.5 ft: additional shale.			
-39.3			100/1	0	Drive split spoon 1 in. Oyster shells observed in tip. 1145 Break for lunch. 1245 Resume drilling.
-44.3			100/0	0	Split spoon refusal.
-49.3		@ 55 ft: light yellowish-gray sandstone conglomerate.			@ 55 ft: Terminate drilling. 13 Nov. 98, 0700: Commence rock coring with NQ core barrel (1-7/8 in. ID, 3in. OD).
	57.0	SILTSTONE/MUDSTONE: red to red-brown to yellow-gray.			
-54.3	60.0	Boring terminated at 60 ft.			0900: Complete coring at 60 ft. Recovery = 5 ft. Plug and abandon boring. Grout Mixture: 7 gal. water to 1 bag (94 lbs.) type I portland cement and 5 lbs. bentonite.
-59.3					
-64.3					
-69.3					
-74.3					

REMARKS:

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520	BORING ID: B-4
LOCATION: B-4	N:718763.553 / E:632914.610	GROUND ELEV.: 6.623
DRILLING CO.: Diamond Drilling	RIG: Canterra CT-250	DRILLER: M. Kurzynowski
METHOD & DIAMETER: Mud Rotary		LOGGED BY: C Evanko/J. Brandes
DATE: STARTED- 16 Nov 98	COMPLETED- 17 Nov 98	CHECKED BY: E. Triplett

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	Blows/ 6 in.	Rec. (in.)	DRILLING LOG
6.6		ASPHALT			1045: Commence drilling.
	0.7	FILL: brown sand, gravel, brick and concrete fragments.			
		@ 3 ft: crushed rock and concrete.			
1.6		@ 5 to 6 ft: light gray process mud.			
		@ 6 to 7 ft: sandy fill, stained.			
		@ 7 to 8.5 ft: sandy fill, moist, stained.			
		@ 9 ft: hard, dense, black coal tar.			
-3.4		@ 10 to 11 ft: wood.			
	12.0	SAND: brown, medium grained, some coarse, wet, no visible staining.			
-8.4					@ 15 ft: driller fluid appears to contain ash, coal tar, oil.
-13.4					
-18.4			1 0 0 0	0	
	27.0	SILTY CLAY: brown to reddish brown, plastic.			
-23.4			8 11 12 13	9	Redish brown clay. 1305: collect 98320-04.
-28.4			18 22 29 34	24	Redish brown clay.
-33.4					

REMARKS:

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TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: B-4
LOCATION: B-4	N:718763.553	E:632914.610	GROUND ELEV.:6.623
DRILLING CO.: Diamond Drilling	RIG: Canterra CT-250		DRILLER: M. Kurzynowski
METHOD & DIAMETER: Mud Rotary			LOGGED BY: C Evanko/J. Brandes
DATE: STARTED- 16 Nov 98	COMPLETED- 17 Nov 98		CHECKED BY: E. Triplett

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SYMBOL	WELL DIAGRAM	Blows/ 6 in.	Rec. (in.)	DRILLING LOG
-33.4					12 14 17 19	18	
-38.4	45.0	CLAYEY SILT: brown to reddish brown.			12 17 20 23	16	collect geotech. sample B4-01 (45'-47').
-43.4	50.0	SAND: medium to coarse, some shale fragments, reddish brown. @ 52.5 ft: sand and gravel.			13 17 26 29	12	
-48.4	55.0	SANDSTONE CONGLOMERATE: weathered, fairly soft, hardening downward, reddish brown.			100/5	2	Gravel, cobble and weathered sandstone in nose of split spoon. 1500: Terminate drilling for day. @58 ft. 17 Nov. 98, 0645: continue drilling Oil sheen observed in mud.
-53.4							
-58.4		@ 68 ft: Transition Zone - greenish bedded sandstone to purplish siltstone/mudstone.					@ 66.5 ft: hard drilling. @ 67 ft: (stop drilling) Changeout mud. 0800: Commence rock coring with NQ core barrel. 0900: Terminate coring at 72 ft. Recovery = 4 ft. RQD = 0 (all broken up).
	68.0	SILTSTONE/MUDSTONE: slightly metamorphosed, fractured, red-purple.					
-63.4							
	72.0	Boring terminated at 72 ft.					Grout Mixture: 7 gal. water to 1 bag (94 lbs.) type I portland cement and 5 lbs. bentonite (110 gals).
-68.4							
-73.4							

N:\QUANTA\BORLOGS\B-4.PL3 MFD-1 10-01-99

REMARKS:

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: MW-101
LOCATION: MW-101	N:719001.17	E:632734.82	GROUND ELEV.:8.12
DRILLING CO.: Diamond Drilling	RIG: Canterra CT-250		DRILLER: M. Kurzynowski
METHOD & DIAMETER: Hollow Stem Auger 4.25 in I.D.			LOGGED BY: J. Brandes
DATE: STARTED- 17 Nov 98	COMPLETED- 17 Nov 98		CHECKED BY: E. Triplett

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	Blows/ 6 in.	Rec. (in.)	DRILLING LOG
5.8	0.0	FILL: brown sand, gravel, small brick and concrete debris.	26 50/3	8	1200: Commence drilling.
		@ 2 ft: black cinders.	50/2	1	@ 2 ft: coal tar odor.
0.8			5 50/0	1	@ Sample FID = 400 ppm
		@ 6.5 ft: wet. @ 7 ft: hard coal tar pitch and wood.	40 42 50/2	8	Wood in spoon tip. 1240: collect 98321-01 6-7' @ Sample FID = 100 ppm.
			50 9 7 5	4	Hard coal tar pitch in spoon tip.
-4.3			20 12 6 8	8	
	11.0	SILTY SAND: redish-brown, wet, fine to medium.	12 6 9 13	24	1305: Collect 98321-02 13-14' @ Sample FID = 10 ppm. Slight coal tar odor.
-9.3			4 4 5 6	24	@ 14-16' collect geotech. sample MW-101 (14-16'), no coal tar odor.
			12 12 11 8	16	
			13 29 40 44	6	
-14.3	20.0	Boring terminated at 20 ft.			1330: Terminate drilling and set well.
-19.3					
-24.3					
-29.3					
-34.3					

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REMARKS:

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: MW-102
LOCATION: MW-102	N:718753.06	E:632914.91	GROUND ELEV.:6.62
DRILLING CO.: Diamond Drilling	RIG: Canterra CT-250		DRILLER: M. Kurzynowski
METHOD & DIAMETER: Hollow Stem Auger 4.25 in I.D.			LOGGED BY: C. Evanko
DATE: STARTED- 16 Nov 98	COMPLETED- 16 Nov 98		CHECKED BY: E. Triplett

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	Blows/ 6 in.	Rec. (in.)	DRILLING LOG
4.1	0.0	ASPHALT.			0800 Commence drilling.
	0.7	FILL: brown sand, gravel, brick and concrete fragments.			
		@ 3 ft: crushed rock and concrete.	9 15 50/2	6	
					Auger to 5 ft.
-0.9		@ 5 to 6 ft: light gray process mud.	1 3 2 1	24	
		@ 6 to 7 ft: sandy fill, stained.			
		@ 7 to 8.5 ft: sandy fill, moist, stained.	9 37 50/3 100/6	24	
		@ 9 ft: hard, dense, black coal tar.	37 100/6	4	Refusal on wood, auger through approximately 1 ft wood layer.
-5.9		@ 10 to 11 ft: wood.			
					Drill to 12 ft.
	12.0	SAND: brown, medium grained, some coarse, wet, no visible staining.	1 2 2 2	12	0920: collect 98320-01. 0925: collect 98320-02 (duplicate)
-10.9			1 2 3 2	18	
			3 6 9 11	24	
			7 7 12 11	12	
-15.9			6 9 14 19	24	0950: collect 98320-03. 1000: Terminate drilling and set well.
	22.0	Boring terminated at 22 ft.			
-20.9					
-25.9					
-30.9					
-35.9					

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REMARKS:

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: MW-103
LOCATION: MW-103	N:718614.16	E:633202.67	GROUND ELEV.: 6.00
DRILLING CO.: Diamond Drilling	RIG: Canterra CT-250		DRILLER: M. Kurzynowski
METHOD & DIAMETER: Hollow Stem Auger 4.25 in I.D.			LOGGED BY: J. Brandes
DATE: STARTED- 11 Nov 98	COMPLETED- 11 Nov 98		CHECKED BY: E. Triplett

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SYMBOL	WELL DIAGRAM	Blows/ 6 in.	Rec. (in.)	DRILLING LOG
3.6		FILL: sandy wood, brick, concrete, coal tar, cinders.			9 17 12 20	12	0830: Commence drilling. 0848: collect 98315-01 @ 0-1 ft.
		@ 3 ft: cinders, coal tar.			22 26 27 29	12	Cinders, coal tar. 0900: collect 98315-02 @ 3-4 ft.
-1.4		@ 4 ft: brick, cinders, stained sand.			10 12 14 6	10	
					6 5 9 9	1	Sluff.
-6.4	9.0	SILTY SAND: brown to gray medium with some coarse, coal tar odor, slight staining.			9 3 4 4	12	0930: collect 98315-03 @ 9-10 ft.
		@ 11 to 13 ft: heavy staining.			4 6 8 9	24	
		@ 13 ft: brown, silty sand.			4 6 9 11	24	0950: collect 98315-04 @13-14 ft
-11.4		@ 14 to 15 ft: stained. @ 15 to 16 ft: clean.			6 9 12 14	24	
		@ 16 to 16.5 ft: stained. @ 16.5 to 18 ft: clean.			11 13 16 19	24	
-16.4					3 6 8 13	12	
	21.0	@ 20 ft: heavy staining, 2 in thick product zone. CLAYEY SILT: gray, marbled.			5 6 11 13	24	Staining on outside of sample in split spoon. Outside of sample discarded. 0950: collect 98315-05 @21-22 ft
	22.0	Boring terminated at 22 ft.					Terminate drilling and set well.
-21.4							
-26.4							
-31.4							
-36.4							

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REMARKS:

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: MW-104
LOCATION: MW-104	N:718509.55	E:633599.20	GROUND ELEV.:5.65
DRILLING CO.: Diamond Drilling	RIG: Canterra CT-250		DRILLER: M. Kurzynowski
METHOD & DIAMETER: Hollow Stem Auger 4.25 in I.D.			LOGGED BY: J. Brandes
DATE: STARTED- 13 Nov 98	COMPLETED- 13 Nov 98		CHECKED BY: E. Triplett

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SYMBOL	WELL DIAGRAM		Blows/ 6 in.	Rec. (in.)	DRILLING LOG
3.0		FILL: wood, gravel, sand, coal tar. @ 2 to 4 in: wood.						1100: Commence drilling.
		@ 2 ft: wood, approximately 2 ft thick.						
		@ 4 ft: moist sand, gravel fill, stained black.						
-2.0								
		@ 8 ft: wet.						
-7.0		@ 10 to 12 ft: coal tar and heavy stained soil.						
	12.5	SILTY CLAY: gray, plastic.				7 2 2 1	0	1145: Break for lunch @ 12 ft. Silty clay at split spoon tip.
	14.0	Boring terminated at 14 ft.						1350: Terminate drilling and set well.
-12.0								
-17.0								
-22.0								
-27.0								
-32.0								
-37.0								

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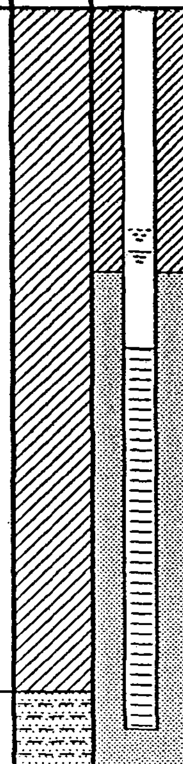
REMARKS:

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520	BORING ID: MW-105
LOCATION: MW-105	N:718404.80 E:633554.62	GROUND ELEV.:5.03
DRILLING CO.: Diamond Drilling	RIG: Canterra CT-250	DRILLER: M. Kurzynowski
METHOD & DIAMETER: Hollow Stem Auger 4.25 in I.D.		LOGGED BY: J. Brandes
DATE: STARTED- 18 June 99	COMPLETED- 18 June 99	CHECKED BY: E. Triplett

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	Blows/ 6 in.	Rec. (in.)	DRILLING LOG
2.5		FILL: brown sand, gravel, black cinders, wood, coal tar pitch.	9-28-22-26	10	0810: commence drilling
		@ 0 to 3 ft: brown sand and gravel with black cinders, dry. @ 3 ft: wood layer.	42-100/6	8	@ 3 ft: spoon refusal on wood.
-2.5		@ 4 to 6 ft: black cinders, some wood, slight tar, coal tar odor, dry.	11-25-12-8	11	0835: colect 99169-01 @ 5 ft.
		@ 6 to 8 ft: sandy, black staining, wood, wet.	7-6-7-8	6	
		@ 8 ft: fluid tar. @ 9 to 10 ft: wood, sand, cinder, trace tar, coal tar odor, wet.	9-7-3-2	4	@ hole PID = 3.5 ppm @ BZ PID = 0.2 ppm
-7.5		@ 10 to 12 ft: coarse cinders, oily sheen, very wet.	1-0-1-1	0	
		@ 12 to 14 ft: very hard coal tar pitch.	10-46-6-5	12	
-12.5			1-1-1-1	2	0900: @ BZ PID = 0.0 ppm. hard sticky pitch in spoon tip.
		@ 16 ft: Hard sticky coal tar pitch.	0-0-0-1	3	wet cinder sluff in spoon.
	18.0	CLAYEY SILT: gray, fairly plastic.	WOR	24	@ 18 ft: clayey silt in spoon tip. 0930: collect 99169-02 @ 19-20 ft. Terminate drilling and set well.
-17.5	20.0	Boring terminated at 20 ft			1020: complete well. 4 50-lbs bags #1 WG FilterSil sand 55-gal grout (Baroid bentonite powder 1.5 lbs/gal)
-22.5					
-27.5					
-32.5					
-37.5					



REMARKS:

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TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: MW-106
LOCATION: MW-106	N:718195.96	E:633436.08	GROUND ELEV.:7.17
DRILLING CO.: Diamond Drilling	RIG: Canterra CT-250		DRILLER: M. Kurzynowski
METHOD & DIAMETER: Hollow Stem Auger 4.25 in I.D.			LOGGED BY: J. Brandes
DATE: STARTED- 21 June 99	COMPLETED- 22 June 99		CHECKED BY: E. Triplett

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ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	Blows/ 6 in.	Rec. (in.)	DRILLING LOG
7.4		FILL: sand and gravel, brown to tan, red brick pieces, slight staining, generally no odor.	16-26-31-18	8	1325: Commence drilling.
			10-15-27-13	6	
2.4			15-19-26-28	7	
			5-6-5-7	7	
-2.6		@ 9 to 18 ft: dark gray silt mixed with cinders, slight marsh mud odor.	13-15-7-9	12	1410: Collect 99172-03 @ 9-10'.
			3-1-2-1	4	
			2-2-2-1	8	
-7.6			4-1-2-1	6	1440: Collect 99172-04 @ 14-15'.
			3-2-2-3	0	
	18.0	CLAYEY SILT: gray, trace dark staining, slight coal tar odor decreasing with depth.	1-3-2-2	10	1450: Collect 99172-05 @ 18-19'
-12.6			WOH-WOH-2-3	18	
			1-0-1-0	20	1515: Collect 99172-06 @ 23-24'
	24.0	Boring terminated at 24 ft.			1515: Stop drilling for day. 22 June 99, 0700: Start setting well. 3.5 50-lbs bags #1 WG FilterSil sand. 50-gal grout (1 bag Baroid bentonite powder). 0830: Complete well.
-17.6					
-22.6					
-27.6					
-32.6					

REMARKS:

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: MW-107
LOCATION: MW-107	N:718371.10	E:632980.54	GROUND ELEV.:6.85
DRILLING CO.: Diamond Drilling	RIG: Canterra CT-250		DRILLER: M. Kurzynowski
METHOD & DIAMETER: Hollow Stem Auger 4.25 in I.D.			LOGGED BY: J. Brandes
DATE: STARTED- 23 June 99	COMPLETED- 23 June 99		CHECKED BY: E. Triplett

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ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SYMBOL	WELL DIAGRAM	Blows/ 6 in.	Rec. (in.)	DRILLING LOG
7.1		FILL: sand, gravel, brick and concrete fragments, brown.			19-28-70-43	12	1035: Commence drilling.
					11-15-29-33	7	
2.1		@ 5ft: moist.			11-16-100/0"	3	
		@ 6 ft: wet and slight dark staining.					
					200/3"	12	1130: Auger refusal @ 8 ft. Off-set 6' south drill to 10'.
-2.9	10.0	SAND AND SILTY SAND: fine, interbedded layers of silty sand, gray, some black staining and coal tar odor.			6-8-8-9	12	
		@ 11 ft: 1-in thick layer of black staining.			8-7-10-13	24	1150: Collect 99174-02 @ 13-14'. @ sample PID = 0 ppm.
		@ 13 to 14 ft: fine sand with black staining and coal tar odor.					
-7.9					5-7-9-11	24	
		@ 17.5 to 18 ft: silty sand, no staining.			11-9-15-18	24	12.5: collect 99174-03 @ 17.5-18
		@ 18 to 19.5 ft: fine sand, black staining, slight coal tar odor.			3-4-5-7	18	
		@ 19.5 to 20 ft: silty sand, no staining.					
-12.9		@ 20 to 21.3 ft: fine sand, black staining.			9-13-16-20	24	@ sample PID = 0 ppm.
		@ 21.3 to 22 ft: silty sand, no staining.					
		@ 22 ft: slight sheen.			15-19-23-22	24	
	23.0	SILT: gray to brown, trace fine sand.					1235: collect 99174-04 @ 23-23.5'. Slight sweet odor.
	24.0	Boring terminated at 24 ft.					1230: Start setting well. 3 50-lbs bags #1 WG FilterSil sand. 20-gal grout (0.3 bag Baroid bentonite powder).
-17.9							
-22.9							
-27.9							
-32.9							

REMARKS:

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: MW-108
LOCATION: MW-108	N:718580.35	E:632735.04	GROUND ELEV.:7.17
DRILLING CO.: Diamond Drilling	RIG: Canterra CT-250		DRILLER: M. Kurzynowski
METHOD & DIAMETER: Hollow Stem Auger 4.25 in I.D.			LOGGED BY: J. Brandes
DATE: STARTED- 21 June 99	COMPLETED- 21 June 99		CHECKED BY: E. Triplett

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SYMBOL	WELL DIAGRAM	Blows/ 6 in.	Rec. (in.)	DRILLING LOG
7.7	0.3	ASPHALT					0830: Commence drilling.
		FILL: sand, gravel, silt, brown to tan. @ 0.3 to 1 ft: sand and gravel ballast. @ 1 ft: sand, silt, gravel, brown.			9-14-100/5"	12	@ 2.5 ft: Spoon refusal. 0840: Collect 99172-01 @ 2-2.5'
2.7		@ 4 ft: diabase cobble.			11-15-19-16	0	
		@ 7 to 9 ft: some black staining, asphalt like odor.			23-28-46-38	12	@ 8 ft: Hard drilling.
					23-27-100/1"	4	@ 9 ft: Spoon refusal.
-2.3	10.5	CLAY: gray meadow mat, aboundant root mat, plastic.			WOR	20	0920: Collect 99172-02 @ 11-12'.
					WOH-WOH-3-1	24	
-7.3					Shelby		@ 15 to 17 ft: Push shelby tube.
					WOH	0	
	19.0	Terminate boring at 19 ft.					1030: Start setting well. 2.5 50-lbs bags #1 WG FilterSil sand. 20-gal grout (1 50-lbs bag Baroid bentonite powder).
-12.3							
-17.3							
-22.3							
-27.3							
-32.3							

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REMARKS:

GeoSyntec Consultants

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: MW-109
LOCATION: MW-109	N:718036.53	E:633336.96	GROUND ELEV.:4.60
DRILLING CO.: Diamond Drilling	RIG: Canterra CT-250		DRILLER: M. Kurzynowski
METHOD & DIAMETER: HSA 4.25 in I.D./Wash Rotary			LOGGED BY: J. Brandes
DATE: STARTED- 22 June 99	COMPLETED- 24 June 99		CHECKED BY: E. Triplett

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SYMBOL	WELL DIAGRAM	Blows/ 6 in.	Rec. (in.)	DRILLING LOG
4.8		Fill: sand, gravel, diabase cobbles and boulders, fine, brown, cinders.			6-9-21-32	16	0855: Commence drilling.
					19-27-100/6"	4	@ 3.5 ft: Spoon refusal. @ 4 ft: Hard drilling.
-0.2							
		@ 6 ft: slight black staining and petroleum hydrocarbon odor.			2-4-12-20	8	@ sample PID = 0 ppm.
					36-100/3"	6	
-5.2					59-63-74-100/4"	12	@ 9 ft: Hard drilling.
		@ 11 to 13 ft: cinders.			7-8-5-9	5	
-10.2		@ 14 to 16 ft: wood chips, cinders, sand.			3-8-100/0"	1	@ 15 ft: Very hard drilling. Hole at angle.
		@ 16 to 18 ft: cinders, shale, and sandstone fragments.			32-63-17-8	6	1100, @ 16 ft: Pull augers, lead auger broke off in hole. Attempt to retrieve auger.
	18.0	CLAYEY SILT: gray, some small rock fragments, trace coal tar odor.			4-3-2-2	2	1120: Boulders cave into hole over auger, abandon hole. Stop drilling for day. 23 June 99,
-15.2					WOH-WOH-1-2	6	0705: Off-set 5' west commence HSA drilling to 3'. Set up for wash rotary. Pump water from open hole. 0740: Continue drilling to 18 ft and start SPS.
	22.0	Terminate Boring at 22 ft.					0855: Collect 99174-01 @ 20-21'. 0900: Start setting well. 4 50-lbs bags #1 WG FilterSil sand. Add 95-gal grout-level doesn't rise. Add 1 50-lb bag dry bentonite powder. 24 June 99: complete grouting well and initial hole with betonite chips.
-20.2							
-25.2							
-30.2							
-35.2							

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REMARKS:

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520	BORING ID: MW-110
LOCATION: MW-110	N:719273.03 E:633109.41	GROUND ELEV.: 11.48
DRILLING CO.: Diamond Drilling	RIG: Canterra CT-250	DRILLER: M. Kurzynowski
METHOD & DIAMETER: Mud Rotary 8-in. Roller Bit		LOGGED BY: J. Brandes
DATE: STARTED- 24 June 99	COMPLETED- 24 June 99	CHECKED BY: E. Triplett

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ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SYMBOL	WELL DIAGRAM	Blows/ 6 in.	Rec. (in.)	DRILLING LOG
9.2		FILL: boulders, sand, gravel, wood, concrete, debris.					0855: Commence drilling. Drill to 9'.
4.2							
-0.8					4-6-9-5	10	
		@ 9 to 13 ft: cinders, sand, gravel.			6-8-5-5	12	0915: Collect 99175-01 @ 12-13'.
		@ 14 ft: wood, creosote odor.			5-7-6-4	10	
-5.8		@ 16 ft: some black staining and coal tar odor.			10-5-3-5	6	Wood chunks keep clogging intake screen.
	18.0	SAND: fine, brown-green.			2-3-4-4	8	
-10.8					6-8-25-31	12	0945: Collect 99175-02 @ 20-21'.
		@ 21 to 22.5 ft: some silt.			8-10-13-11	12	
	22.5	SANDY SILT: fine to coarse, brown-green, trace small angular sandstone gravel.			31-43-52-56	12	1005: Collect 99175-03 @ 24-25'.
-15.8	25.0	Terminate boring at 25 ft.					1000: Start setting well. 3 50-lbs bags #1 WG FilterSil sand. 50-gal grout.
-20.8							
-25.8							
-30.8							

REMARKS:

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TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520	BORING ID: HAB-01
LOCATION: HAB-01	N:718531.111 / E:633671.764	GROUND ELEV.: -1.7
DRILLING CO.: GeoSyntec	RIG:	DRILLER: J. Brandes
METHOD & DIAMETER: 2 1/4" Hand Auger, 3" PVC		LOGGED BY: C. Lamphier
DATE: STARTED- 19 Nov 98	COMPLETED- 19 Nov 98	CHECKED BY: E. Triplett

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SYMBOL	WELL DIAGRAM		Blows/ 6 in.	Rec	DRILLING LOG
-1.7		SILT						Commence boring, water depth = 3 ft, 20 ft off shore.
-6.7		@ 8.5 to 9 ft: soft black sediment with oily sheen.						Auger to 4.8 ft, no recovery. 1030: collect 98323-01 @ 8.5 to 9 ft. 1115: staff gauge reads 4.5 ft. Depth of water at casing = 1.25 ft @ 10.5 ft, sediment getting firmer, harder augering.
-11.7	12.0	@ 11.5 to 12 ft: dark to black sediment with oily sheen, very strong coal tar odor, heavy sheen. Boring terminated @ 12 ft.						1130: Collect 98323-02 at 11.5 to 12 ft, similar in appearance to last sample. When augering, seemed to bring up oily sheen; sheen bubbling up. Terminate boring and filled hole with bentonite. Pulled out 5 ft of casing.
-16.7								
-21.7								
-26.7								
-31.7								
-36.7								
-41.7								

REMARKS:

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: VC-01
LOCATION: Edgewater, NJ	N:718652	E:633807	GROUND ELEV.:-1.47
DRILLING CO.: Athena Tech.	RIG: Barge Mounted		DRILLER: K. Morrison
METHOD & DIAMETER: Vibracore 2" Aluminum Core			LOGGED BY: K. Wills
DATE: CORED- 16 June 99	DATE: OPENED- 16 June 99		CHECKED BY: J. Brandes

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SYMBOL	Geo Tech.	DRILLING LOG
-1.5		CLAYEY SILT throughout length of core.			
		@ 2 ft: product sheen, some coal tar product. @ 2.1-3 ft: visually free of product, no sheen. @ 3-3.9 ft: slight sheen.			Geotech. sample from 0 to 2 ft.
-6.5					
		@ 7 ft: some coal tar product.			
	7.0	Penetration depth: 7.08 ft. Core length: 3.9 ft. Approx. 0.5 ft of core fell out during retrieval.			Collect sheen test sample at 7 ft.
-11.5					
-16.5					
-21.5					
-26.5					
-31.5					
-36.5					
-41.5					

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REMARKS:

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520	BORING ID: VC-02
LOCATION: Edgewater, NJ	N:718616 / E:633714	GROUND ELEV.: -0.79
DRILLING CO.: Athena Tech.	RIG: Barge Mounted	DRILLER: K. Morrison
METHOD & DIAMETER: Vibracore 2" Aluminum Core		LOGGED BY: K. Wills
DATE: CORED- 16 June 99	DATE: OPENED- 16 June 99	CHECKED BY: J. Brandes

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ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SYMBOL	Geo Tech.	DRILLING LOG
-0.8		CLAYEY SILT, black staining throughout length of core with small pockets/lenses of black product and coal tar odor. @ 2-3 ft: abundant lenses of flowable black product. @ 3.8-4.4 ft: abundant lenses of flowable black product.			Geotech. sample from 0 to 2 ft.
-5.8					
-10.8					Geotech. sample from 8 to 10 ft.
		@ 12.2 ft: flowable black product. @ 13.6 ft: flowable black product. @ 14.4 ft: approximately 1/2 in. thick cinder layer.			
-15.8		@ 14.75 ft: approximately 1/2 in. thick cinder layer. @ 14.75-16 ft: product saturated zone, flowable product upon compression.			
	18.3	Penetration depth: 18.3 ft. Core length: 16.1 ft.			Geotech. sample from 16 to 18 ft. *Chemical* sample 99167-01 *from* 18 to 18.3 ft.
-20.8					
-25.8					
-30.8					
-35.8					
-40.8					

REMARKS:

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: VC-03
LOCATION: Edgewater, NJ	N:718552	E:633681	GROUND ELEV.:-0.98
DRILLING CO.: Athena Tech.	RIG: Barge Mounted		DRILLER: K. Morrison
METHOD & DIAMETER: Vibracore 2" Aluminum Core			LOGGED BY: K. Wills
DATE: CORED- 16 June 99	DATE: OPENED- 17 June 99		CHECKED BY: J. Brandes

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SYMBOL	Geo Tech.	DRILLING LOG
-1.0		CLAYEY SILT, black staining throughout length of core with pockets/lenses of black product and coal tar odor.			
		@ 2.5-7.5 ft: heavy black staining throughout length of zone, with pockets/lenses of free flowable black product, coal tar odor.			Geotech. sample from 0 to 2.5 ft.
-6.0					
-11.0		@ 10.5-15 ft: heavy black staining throughout length of zone, with pockets/lenses of black free flowable product, coal tar odor.			Geotech. sample from 7.5 to 10.5 ft.
-16.0		@ 18 ft: heavy black staining, some free black product, coal tar odor.			
	18.3	Penetration depth: 18.3 ft. Core length: 14.2 ft.			Geotech. sample from 15 to 18 ft. Collect sheen test sample at 18 ft.
-21.0					
-26.0					
-31.0					
-36.0					
-41.0					

N:\QUANTA\BORLOGS\VC-03.PL3 KPM-1 7-16-99

REMARKS:

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.:	GL0520	BORING ID: VC-04
LOCATION: Edgewater, NJ	N:718607	E:633847	GROUND ELEV.:-1.89
DRILLING CO.: Athena Tech.	RIG: Barge Mounted		DRILLER: K. Morrison
METHOD & DIAMETER: Vibracore 2" Aluminum Core			LOGGED BY: K. Wills
DATE: CORED- 16 June 99	DATE: OPENED-	17 June 99	CHECKED BY: J. Brandes

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SYMBOL	Geo Tech.	DRILLING LOG
-1.9		CLAYEY SILT, heavy black staining throughout length of core with small pockets/lenses of black product, coal tar odor.			Geotech. sample from 0-2.25 ft.
-6.9					
-11.9		@ 10-10.5 ft: visually clean, very slight coal tar odor. @ 10.5-12 ft: heavy black staining with small pockets of black product, coal tar odor. @ 12-15 ft: mostly visually clean with traces of black product.			Geotech. sample from 7.6 to 10 ft.
-16.9		@ 15-16 ft: increased black staining with some pockets/lenses of black product. @ 16-17.4 ft: heavy black staining throughout, with small pockets of black product. @ 17.4 ft: aproximately 1/2 in. thick layer of black product, slightly gritty, coal tar odor.			
-21.9	20.3	Penetration depth: 20.25 ft. Core length: 17.6 ft.			Geotech. sample from 17.6 to 20 ft.
-26.9					
-31.9					
-36.9					
-41.9					

REMARKS:

N:\QUANTA\BORLOGS\VC-04.PL3 KPM-1 7-16-99

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: VC-05
LOCATION: Edgewater, NJ	N:718567	E:633793	GROUND ELEV.:-1.61
DRILLING CO.: Athena Tech.	RIG: Barge Mounted		DRILLER: K. Morrison
METHOD & DIAMETER: Vibracore 2" Aluminum Core			LOGGED BY: K. Wills
DATE: CORED- 16 June 99	DATE: OPENED- 17 June 99		CHECKED BY: J. Brandes

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ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SYMBOL	Geo Tech.	DRILLING LOG
-1.6		CLAYEY SILT, heavy black staining throughout length of core with small pockets/lenses of flowable black product, coal tar odor.			Geotech. sample from 0 to 2 ft.
-6.6					
-11.6		@ 12.1-14 ft: slightly less black staining, slight sheen, slight coal tar odor.			Geotech. sample from 10 to 12.1 ft.
		@ 14-20.6 ft: small pockets of product.			
-16.6		@ 15.5 ft: aproximately 1/4-1/2 in. pocket of free black product, coal tar odor.			
		@ 17 ft: aproximately 1/4-1/2 in. pocket of free black product, coal tar odor.			
-21.6	20.6	Penetration depth: 20.6 ft. Core length: 19.4 ft.			Geotech. sample from 17 to 20 ft. Chemical sample 99168-02 at 20.3 ft. Sample split for sheen testing.
-26.6					
-31.6					
-36.6					
-41.6					

REMARKS:

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: VC-06
LOCATION: Edgewater, NJ	N:718500	E:633746	GROUND ELEV.:-1.46
DRILLING CO.: Athena Tech.	RIG: Barge Mounted		DRILLER: K. Morrison
METHOD & DIAMETER: Vibracore 2" Aluminum Core			LOGGED BY: K. Wills
DATE: CORED- 16 June 99	DATE: OPENED- 17 June 99		CHECKED BY: J. Brandes

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	SYMBOL	Geo Tech.	DRILLING LOG
-1.5		CLAYEY SILT, slight black staining throughout length of core with some pockets of very light sheen (isolated), visually less product than other cores.			Geotech. sample from 0 to 2.2 ft.
-6.5					Chemical sample 99168-03 at 4.5 ft.
-11.5		@ 9.8-14.8 ft: heavy black staining throughout length of zone, with pockets of free flowable black product.			Geotech. sample from 7.6 to 9.8 ft
-16.5		@ 17 ft: black stained silt with some clay.			
	17.5	Penetration depth: 17.4 ft. Core length: 15.75 ft.			Geotech. sample from 14.8 to 17 ft. Chemical sample 99168-01 at 17 ft. Sample split for sheen testing.
-21.5					
-26.5					
-31.5					
-36.5					
-41.5					

N:\QUANTA\BORLOGS\VC-06.PL3 KPM-1 7-19-99

REMARKS:

TEST BORING RECORD

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: VC-07
LOCATION: Edgewater, NJ	N:719318	E:634314	GROUND ELEV.:-3.82
DRILLING CO.: Athena Tech.	RIG: Barge Mounted		DRILLER: K. Morrison
METHOD & DIAMETER: Vibracore 2" Aluminum Core			LOGGED BY: K. Wills
DATE: CORED- 17 June 99	DATE OPENED- 17 June 99		CHECKED BY: J. Brandes

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	DRILLING LOG
-3.8		CLAYEY SILT, dark gray, some visible staining, some petroleum hydrocarbon odor. @ 2-3.5 ft: no visible staining, no odor. @ 3.5 ft: slight black staining, slight petroleum hydrocarbon odor.	Geotech. sample from 0 to 2.2 ft.
-8.8			
-13.8		@ 10-17.5 ft: black staining, petroleum hydrocarbon odor.	Geotech. sample from 8.5 10.6 ft.
-18.8			
		@ 18 ft: black staining, no sheen, petroleum hydrocarbon odor.	Collect sheen test sample at 18 ft.
-23.8			
	21.2	Penetration depth: 21.2 ft. Core length: 19.1 ft.	Geotech. sample from 18.6 to 20.9 ft.
-28.8			
-33.8			
-38.8			
-43.8			

REMARKS:

N:\QUANTA\BORLOGS\VC-07.PL3 KPM-1 7-18-99

PROJECT NAME: Quanta Resources	PROJECT NO.: GL0520		BORING ID: VC-08
LOCATION: Edgewater, NJ	N:718684	E:634478	GROUND ELEV.:-2.89
DRILLING CO.: Athena Tech.	RIG: Barge Mounted		DRILLER: K. Morrison
METHOD & DIAMETER: Vibracore 2" Aluminum Core			LOGGED BY: K. Wills
DATE: CORED- 17 June 99	DATE: OPENED- 17 June 99		CHECKED BY: J. Brandes

ELEVATION (FEET)	DEPTH (FEET)	DESCRIPTION	DRILLING LOG
-2.9		@ 3.5 ft: GYPSUM FINES, light gray.	Geotech. sample from 0.08 ft. to 3.08 ft.
-7.9	5.0	CLAYEY SILT, gray, trace black staining, very faint petroleum hydrocarbon odor.	
-12.9		@ 10-15 ft: gray, visually clean, very faint petroleum hydrocarbon odor.	Geotech. sample from 8.3 ft. to 10.4 ft.
-17.9			
	17.5	@ 17.5 ft: no sheen visible, slight petroleum hydrocarbon odor. Penetration depth: 17.5 ft. Core length: 16.75 ft.	Geotech. sample from 15.5 ft. to 17 ft. Collect sheen test sample at 17.5 ft.
-22.9			
-27.9			
-32.9			
-37.9			
-42.9			

REMARKS:

N:\QUANTA\BORLOGS\VC-08.PL3 KPM-1 7-16-99

APPENDIX E

CPT AND ROST™ LOGS

FUGRO GEOSCIENCES, INC.

6105 Rookin
Houston, TX 77074
Phone : 713-778-5580
Fax : 713-778-5501

December 11, 1998
Report Number: 0304-1068

GeoSyntec Consultants
1100 Lake Hearn Drive
Atlanta, Georgia 30342

Attn.: Mr. John Brandes

DATA REPORT
CONE PENETRATION AND
RAPID OPTICAL SCREENING TOOL TESTING
OFFSHORE INVESTIGATION
EDGEWATER, NEW JERSEY

Dear Mr. Brandes:

Fugro Geosciences (Fugro) is pleased to present this data report for Cone Penetration (CPT) and Rapid Optical Screening Tool (ROST™) testing at the above-referenced site. CPT/ROST™ provided continuous characterization of stratigraphy and petroleum hydrocarbon distribution at the testing locations. A description of the CPT and ROST™ technologies and a discussion of general ROST™ data interpretation follows. CPT and ROST™ logs are included as attachments.

Cone Penetration Testing

CPT was performed simultaneously with each ROST™ sounding and yielded real-time stratigraphic data. CPT is a proven method for rapidly evaluating the physical characteristics of unconsolidated soils. It is based on the resistance to penetration of an electronically-instrumented cone which is continuously advanced into the subsurface. In accordance with ASTM Standard D5778-95, the cone was advanced at a rate of two centimeters per second with the driving force provided by hydraulic rams.

The CPT cone used at this site had an apex angle of 60 degrees with a base area of 15 square centimeters (cm^2), and friction sleeve with a surface area of 200 cm^2. The standard geotechnical sensors within the cone measure tip resistance and sleeve friction in tons per square foot (TSF). The combined data from the tip resistance and sleeve friction form the basis of the soil classification (e.g., sand, silt, clay, etc.).

Soil stratigraphy was identified using Campanella and Robertson's Simplified Soil Behavior Chart. Please note that because of the empirical nature of the soil behavior chart, the soil identification should be verified locally.

ROST™ Testing

Fugro Geosciences' ROST™ Laser-Induced Fluorescence system was used for this investigation to screen soils for petroleum hydrocarbon materials containing aromatic hydrocarbon constituents. The system consists of a tunable laser mounted in the CPT truck that is connected to a down-hole sensor. The down-hole sensor consists of a small diameter sapphire window mounted flush with the side of the cone penetrometer probe.

The laser and associated equipment transmit 50 pulses of light per second to the sensor through a fiber optic cable. The wavelength of the pulsed excitation light is tunable and can be set to wavelengths of 266 nanometers (nm) or to wavelengths between 280 and 300 nm. An excitation wavelength of 290 nm was used for each test during this project.

The laser light passes through the sapphire window and is absorbed by aromatic hydrocarbon molecules in contact with the window, as the probe is advanced. This addition of energy (photons) to the aromatic hydrocarbons causes them to fluoresce. A portion of the fluorescence emitted from any encountered aromatic constituents is returned through the sapphire window and conveyed by a second fiber optic cable to a detection system within the CPT rig. The emission data resulting from the pulsed laser light is averaged into one reading per one second interval (approximately one reading per 2 cm vertical interval) and is recorded continuously. ROST™ may be operated in single or multi-wavelength mode, depending on project objectives. For this project, ROST™ was operated in multi-wavelength mode (MWL).

Multi-Wavelength Mode (MWL). In MWL mode, the emitted fluorescence is measured simultaneously at four monitoring wavelengths (340, 390, 440, and 490 nm). The four monitoring wavelengths cover the range of light produced by light fuels through heavy contaminants such as coal tar and creosote and enhance detection of widely ranging product types. The emission data is reported continuously as a total of the fluorescence intensity recorded at each of the four wavelengths. The total fluorescence intensity data is presented in real-time on a computer monitor as a graph of fluorescence intensity versus depth (FVD).

The relative percentage of fluorescence measured at each of the monitoring wavelengths (340, 390, 440, and 490 nm) is plotted continuously on the ROST™ logs as four continuous "color bands". The width of each color band represents the relative percentage of fluorescence emitted by the contaminant at each of the monitoring wavelengths (340, 390, 440, and 490 nm). For general interpretation purposes, lighter aromatic hydrocarbon molecules will emit fluorescence at shorter wavelengths and heavier, longer chained hydrocarbons will emit fluorescence at longer wavelengths.

By comparing the relative percentage ratios generated by known product samples with field data, interpretations of product type can often be made. Utility of product identification is often dependent on the degree of similarity between the reference product and the in-situ product composition.

Reference Solution. The fluorescence intensity of a reference solution placed on the sapphire window was measured immediately prior to conducting each test. This reference solution measurement serves two purposes. First, as a quality control check, the solution is used to ensure that the performance of the system is within specifications. Second, it allows for normalization of the data from different test locations for variation in laser power, operating conditions, and monitored emission wavelength. The reference solution used for this project was the standard M1 reference, which is a proprietary PHC containing solution. M1 provides consistent fluorescence response across the portion of the spectrum analyzed by ROST and therefore; allows the fluorescence data collected to be consistently normalized to intensities recorded as a percentage of M1.

FUGRO

LIMITATIONS OF ENVIRONMENTAL SUBSURFACE WORK

Fugro Geosciences' report is based upon our observations made during field work, the information provided to Fugro and the results of the ROST/CPT survey. Given the inherent limitation of environmental subsurface work, Fugro can not guarantee that the site is free of hazardous or potentially hazardous materials or conditions or that latent or undiscovered conditions will not become evident in the future. Fugro's report was prepared in accordance with our proposal and the General Conditions agreed to between Fugro and Client and no warranties, representations, or certifications are made.

* * *

Fugro Geosciences, Inc. appreciates the opportunity to be of service to your organization. Please do not hesitate to contact us if we can be of further assistance. We look forward to working with you in the future.

Sincerely,
FUGRO GEOSCIENCES, INC.

Andrew Taer
Operations Manager

AT/mw

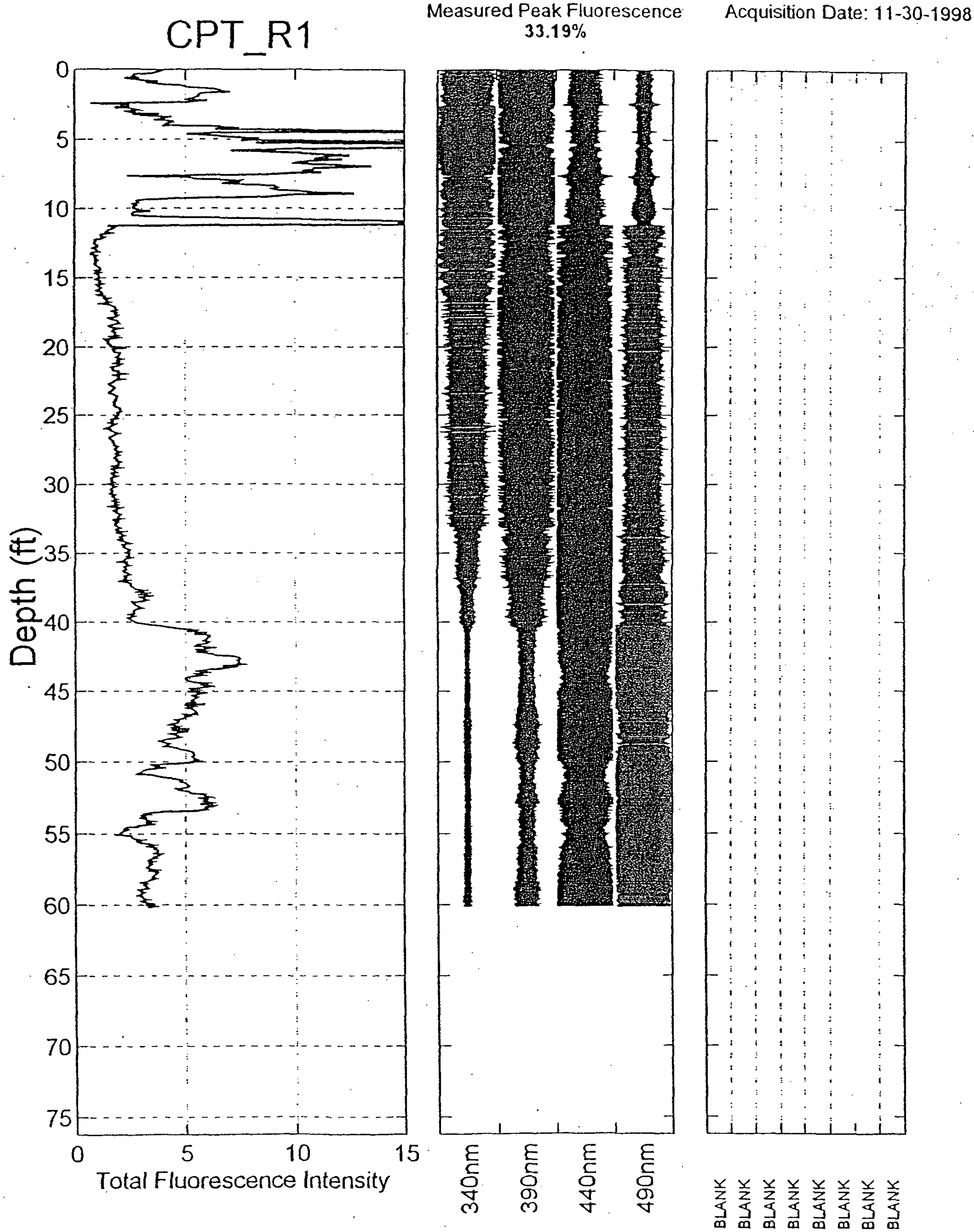
ROST™
LOGS

DATE	CPT	START OF TEST DEPTH TO MUDLINE (FEET)	TIME	END OF TEST DEPTH TO MUDLINE (FEET)	TIME	CASING (FEET)
11/30/98	R-01	10.5				12.5
12/1/98	R-02	15.9	10:25	15.9	11:55	20
	R-03	10.9	12:20	10.75	12:40	12.5
	R-04	9.75	13:35	9.9	13:55	12.5
	R-05	9	16:45	9.2	17:10	12.5
	R-06	9.15	17:55	9.2	18:15	12.5
12/2/98	R-07	9.7	6:40	9.75	7:25	12.5
	R-08	9.8	7:50	9.5	8:15	12.5
	R-09	8.8	17:50	9.05	16:20	12.5
	R-10	8.8	19:30	8.75	19:55	12.5

Measured LIF End Depth
60.17 ft
Measured Peak Fluorescence
33.19%

Job#: 98-1068

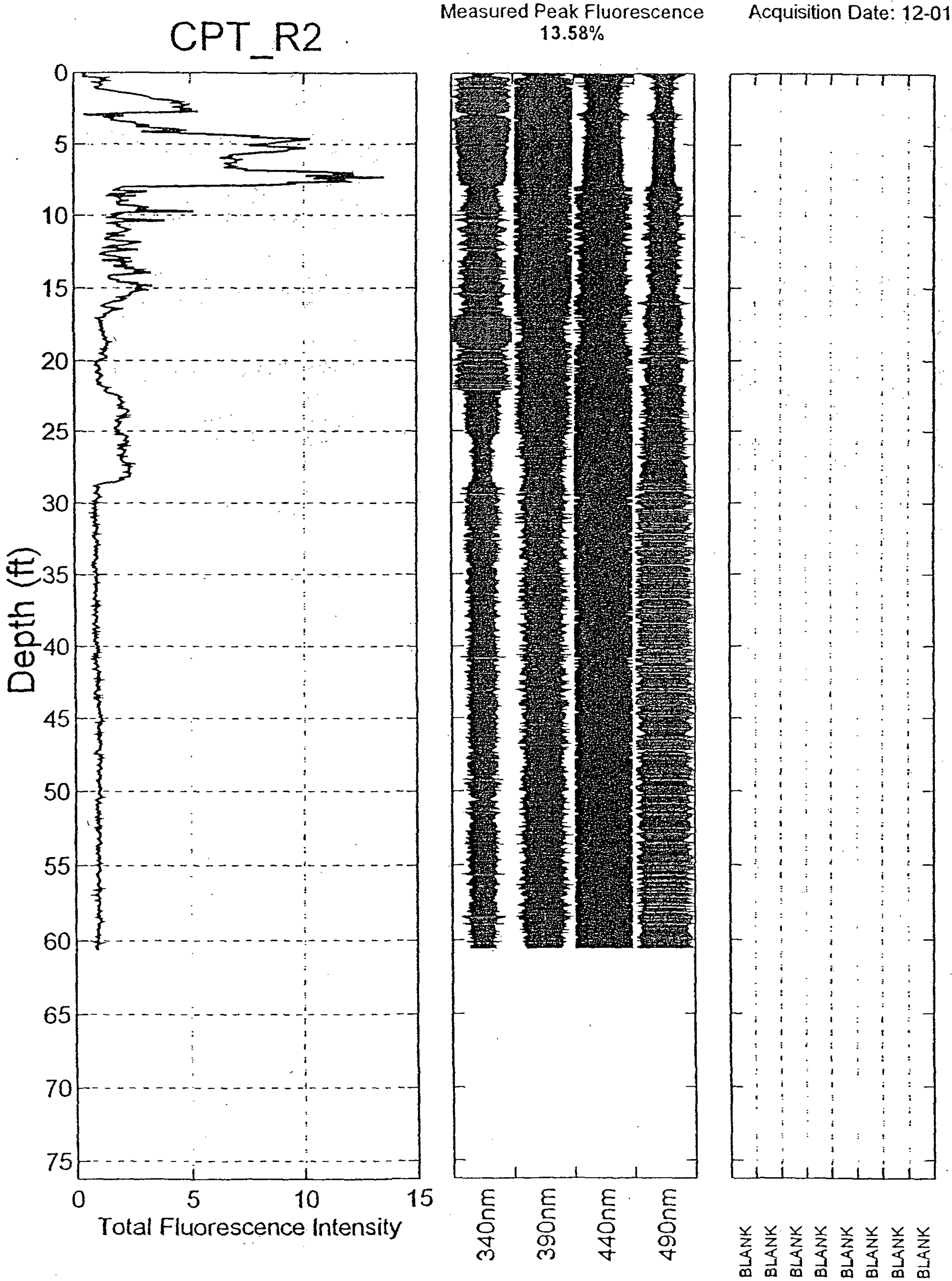
Acquisition Date: 11-30-1998



Measured LIF End Depth
60.56 ft
Measured Peak Fluorescence
13.58%

Job#: 98-1068

Acquisition Date: 12-01-1998

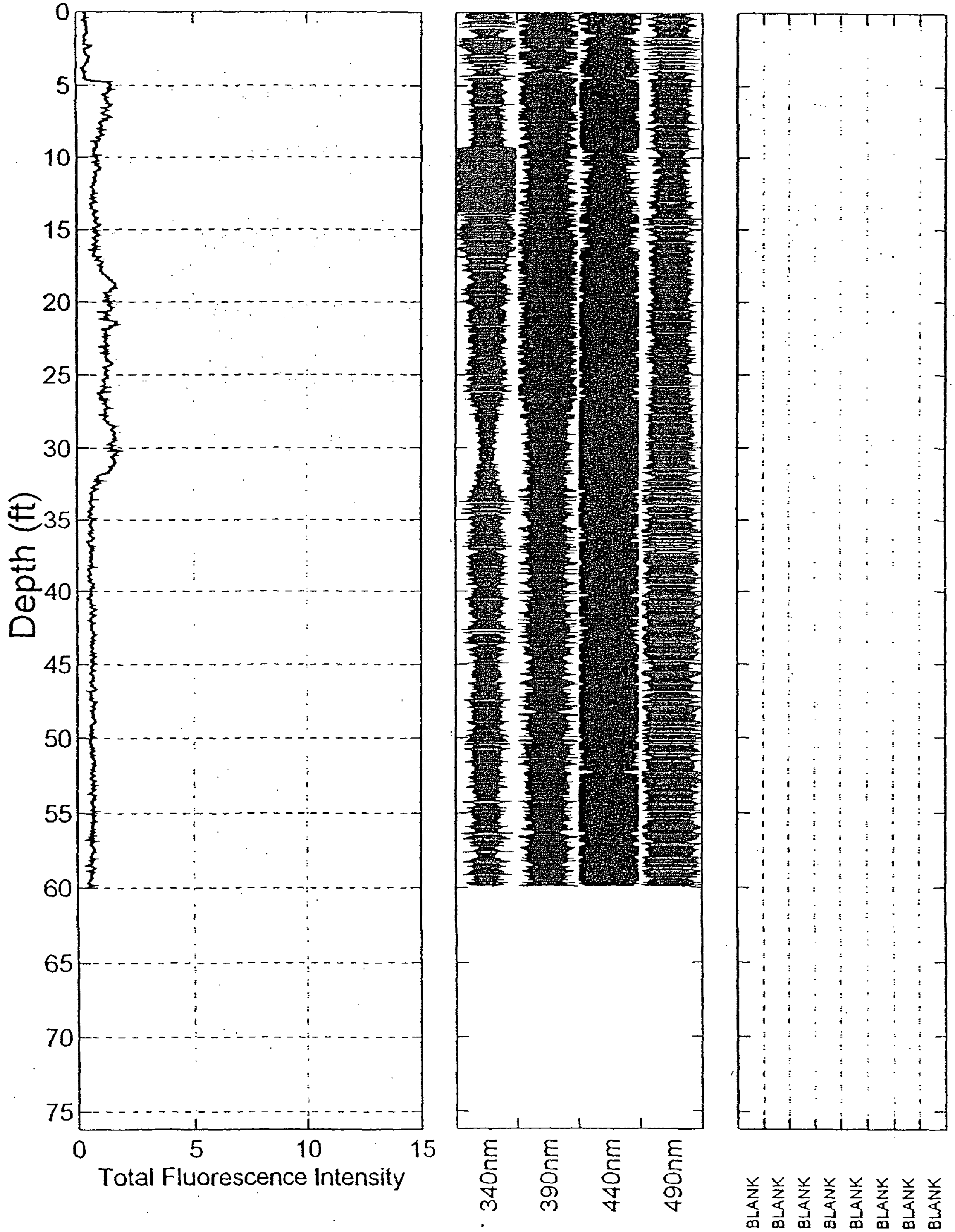


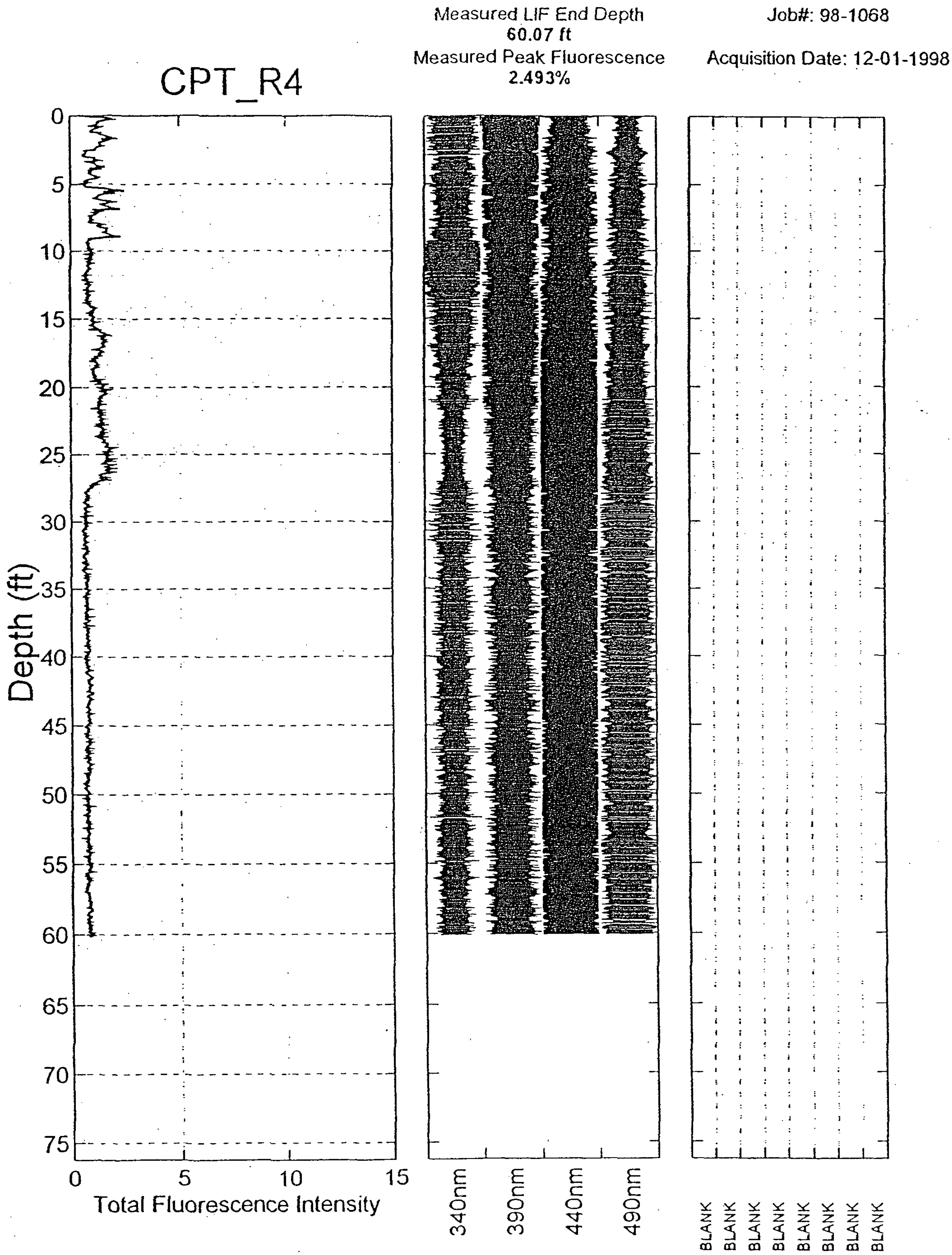
Measured LIF End Depth
59.91 ft
Measured Peak Fluorescence
1.839%

Job#: 98-1068

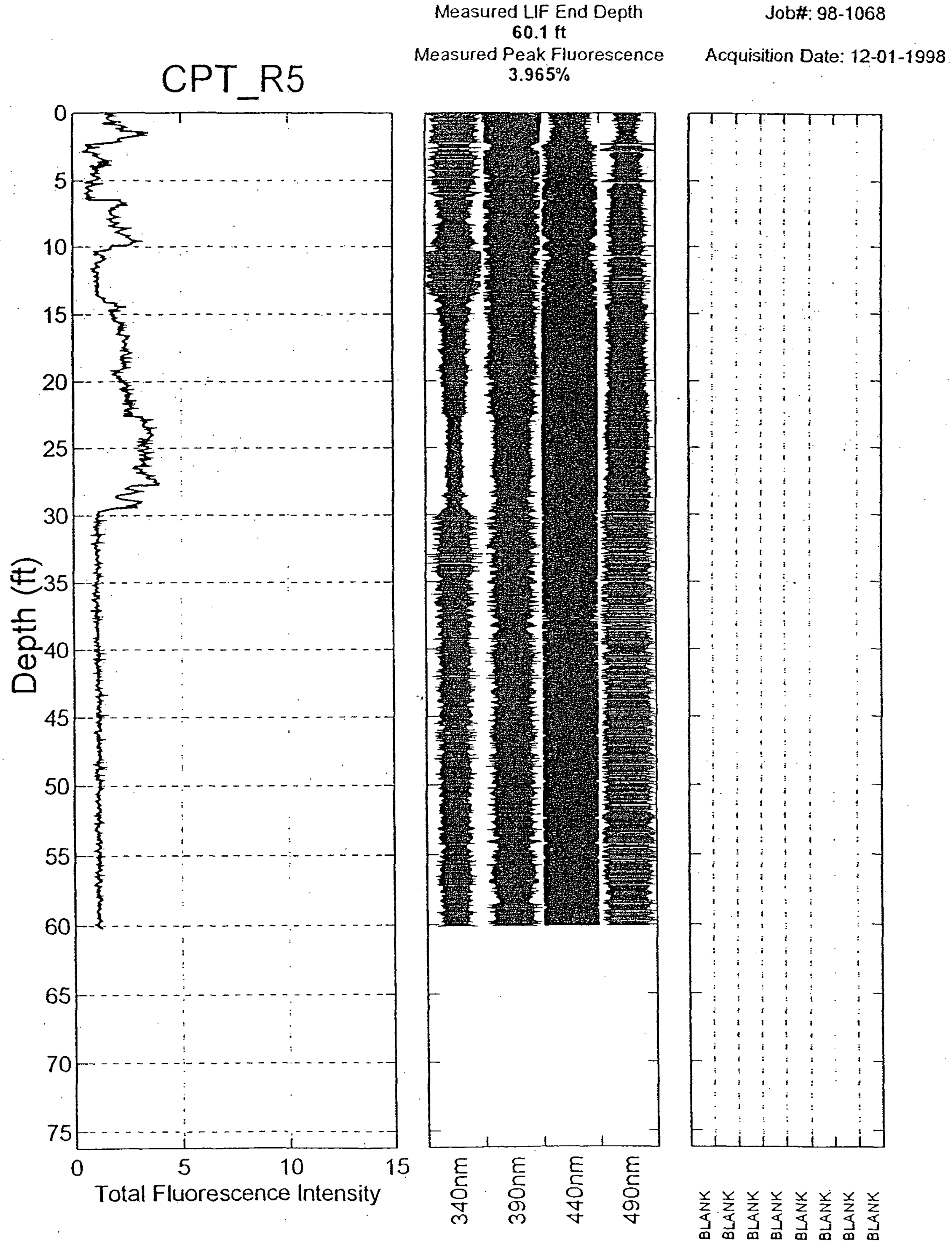
Acquisition Date: 12-01-1998

CPT_R3





Measured LIF End Depth
60.07 ft
Measured Peak Fluorescence
2.493%
Job#: 98-1068
Acquisition Date: 12-01-1998
CPT_R4
Depth (ft)
Total Fluorescence Intensity
340nm
390nm
440nm
490nm
BLANK
BLANK
BLANK
BLANK
BLANK
BLANK
BLANK
BLANK



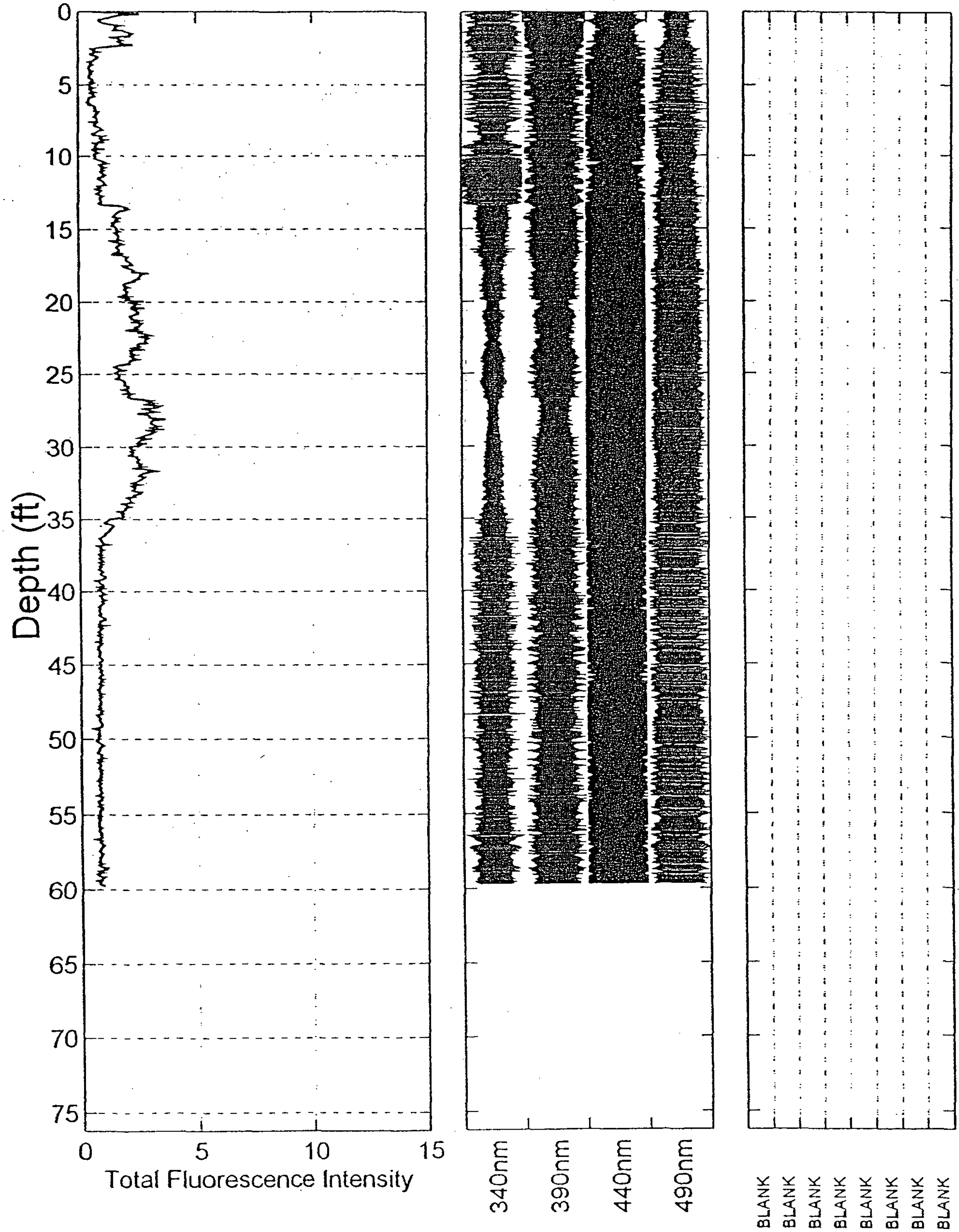
Measured LIF End Depth
60.1 ft
Measured Peak Fluorescence
3.965%
Job#: 98-1068
Acquisition Date: 12-01-1998
CPT_R5
Depth (ft)
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75
0 5 10 15
Total Fluorescence Intensity
340nm
390nm
440nm
490nm
BLANK
BLANK
BLANK
BLANK
BLANK
BLANK
BLANK
BLANK

Measured LIF End Depth
59.68 ft
Measured Peak Fluorescence
3.601%

Job#: 98-1068

Acquisition Date: 12-01-1998

CPT_R6

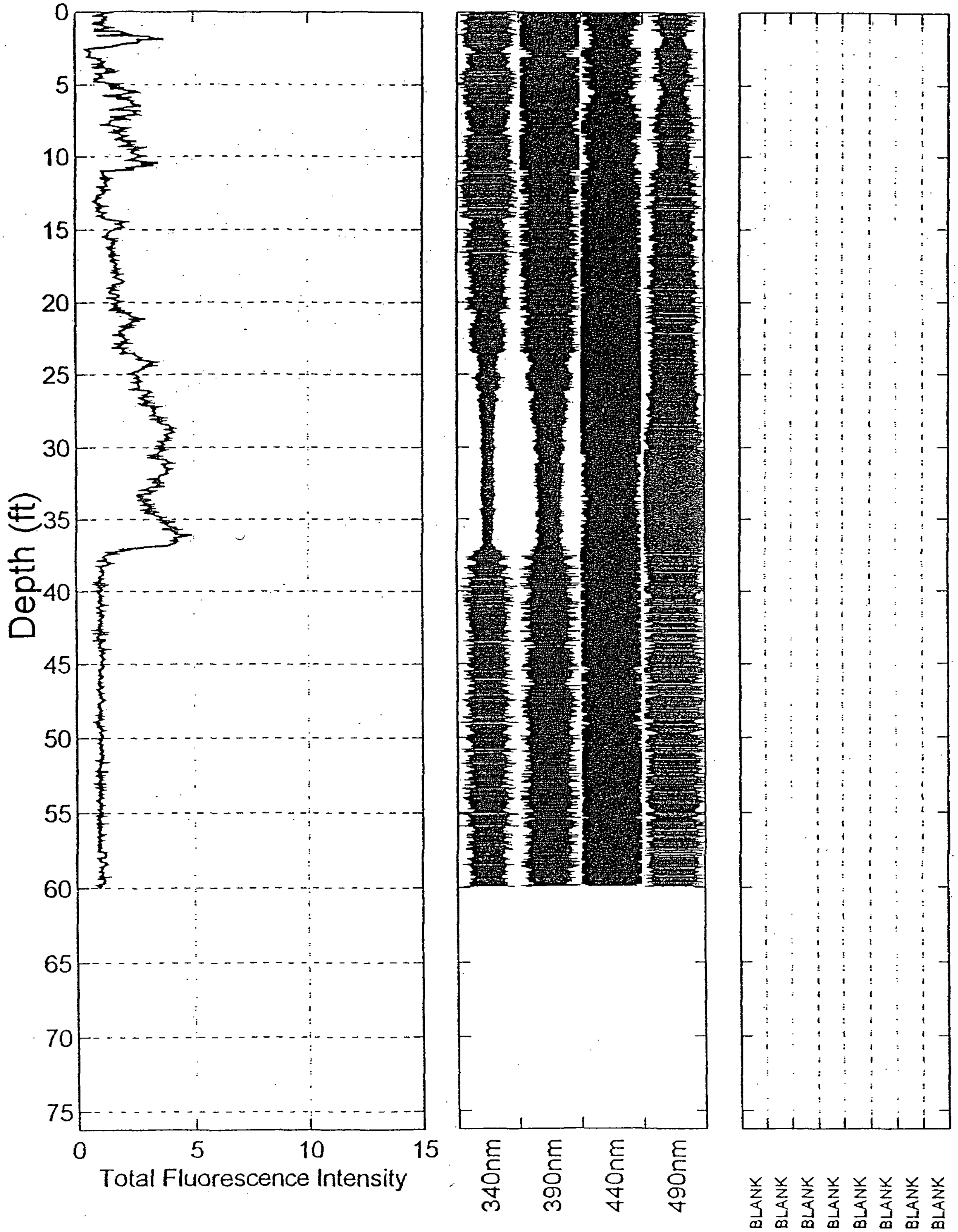


Measured LIF End Depth
59.91 ft
Measured Peak Fluorescence
4.911%

Job#: 98-1068

Acquisition Date: 12-02-1998

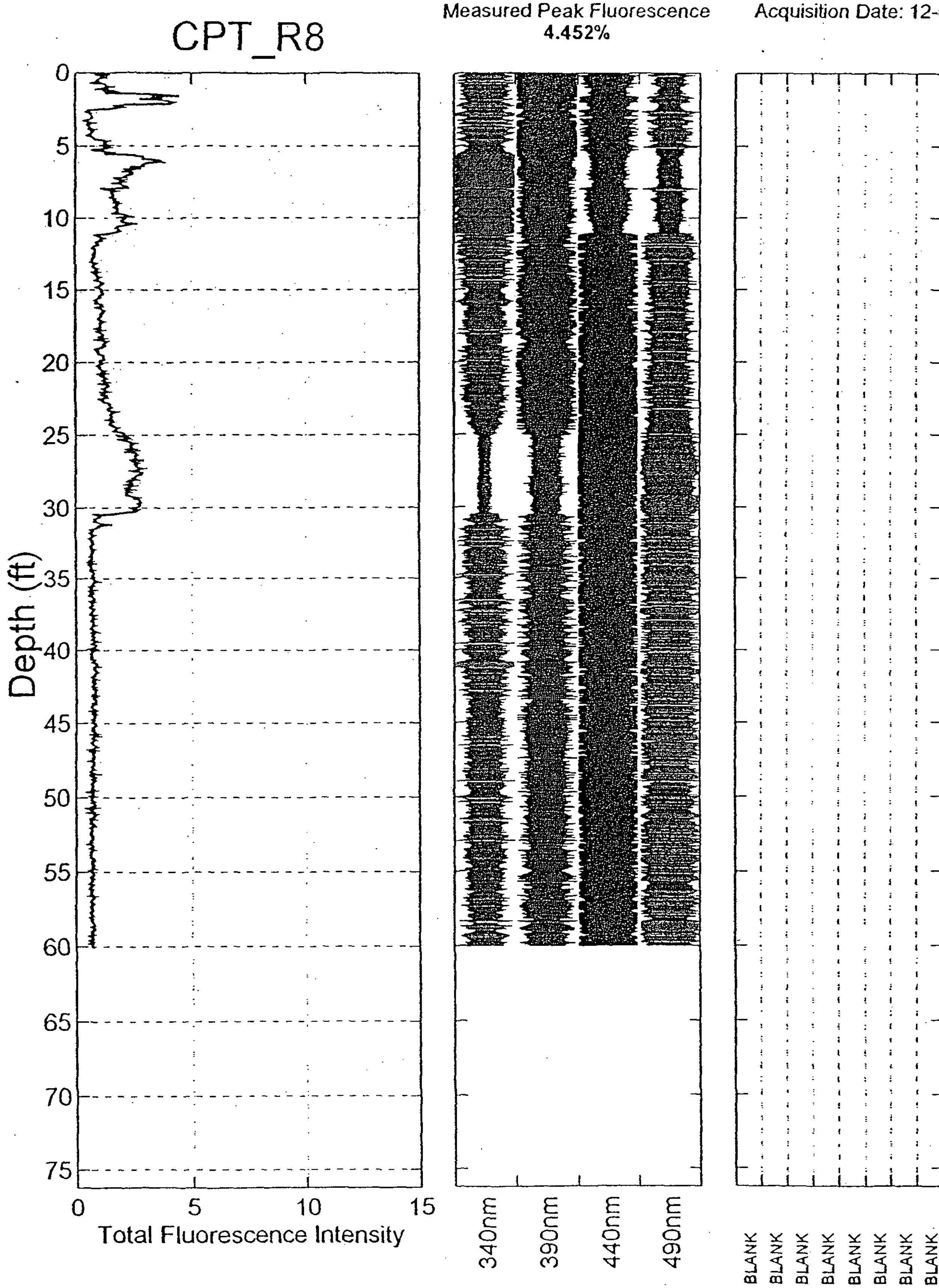
CPT_R7

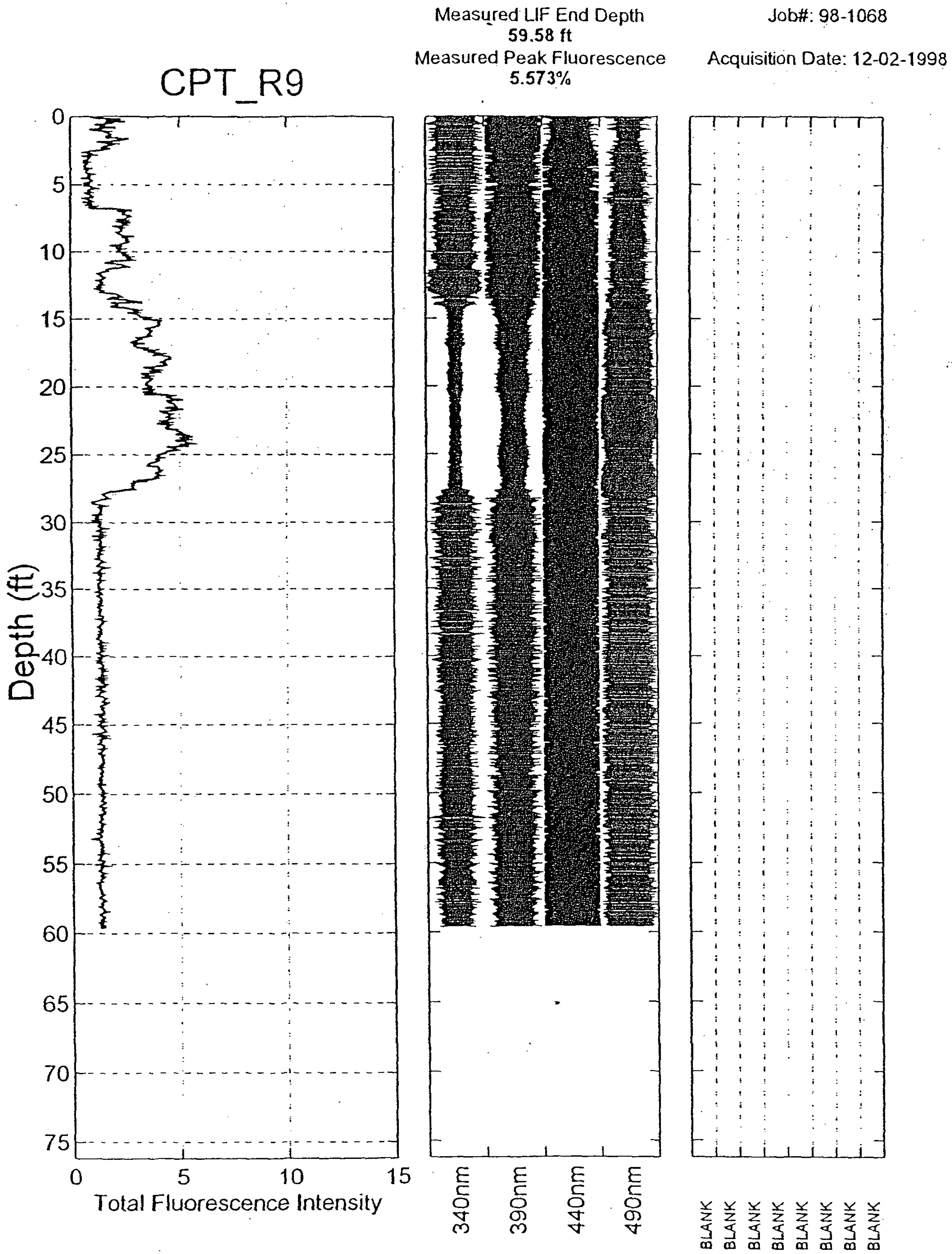


Measured LIF End Depth
60.01 ft
Measured Peak Fluorescence
4.452%

Job#: 98-1068

Acquisition Date: 12-02-1998



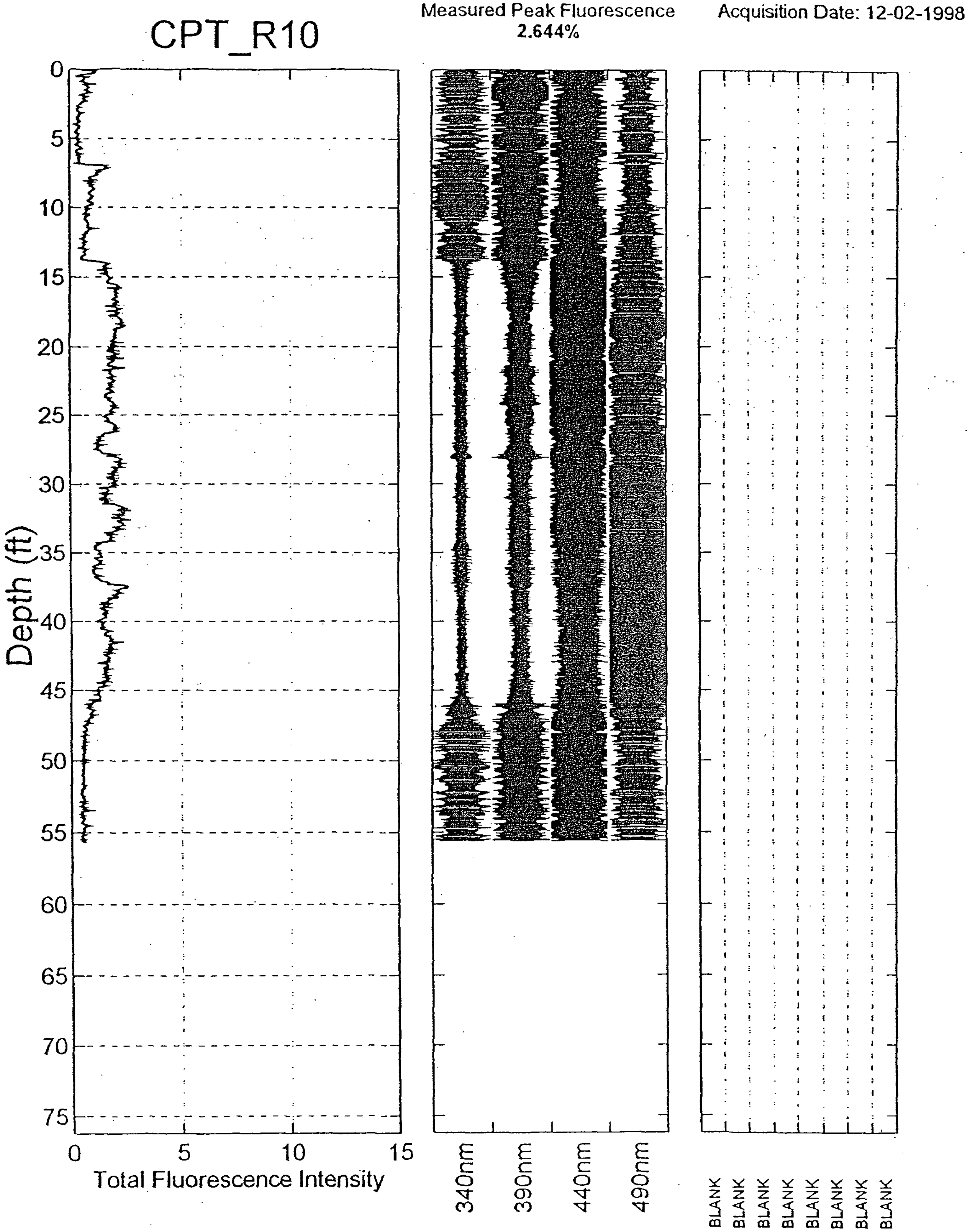


Measured LIF End Depth
59.58 ft
Measured Peak Fluorescence
5.573%
Job#: 98-1068
Acquisition Date: 12-02-1998
CPT_R9
Depth (ft)
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
Total Fluorescence Intensity
340nm
390nm
440nm
490nm
BLANK
BLANK
BLANK
BLANK
BLANK
BLANK
BLANK
BLANK

Measured LIF End Depth
55.64 ft
Measured Peak Fluorescence
2.644%

Job#: 98-1068

Acquisition Date: 12-02-1998

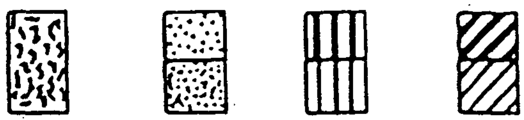


CPT LOGS

Key To Soil Classification and Symbols

SOIL TYPE
(Shown in Symbol Column)

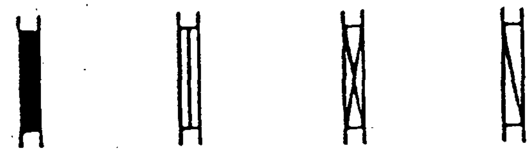
Sand Silt Clay



Fill Sandy Silty Clayey

Predominant Type Shown Heavy

SAMPLE TYPE
(Shown in Samples Column)



Undisturbed Rock Core Split Spoon No Recovery

TERMS DESCRIBING CONSISTENCY OR CONDITION

COARSE GRAINED SOILS (Major portion Retained on No. 200 Sieve)
Includes (1) clean gravels and sand described as fine, medium or course, depending on distribution of grain sizes (2) silty or clayey gravels and sands and (3) fine grained low plasticity soils (PI < 10) such as sandy silts. Condition is rated according to relative density, as determined by lab tests or estimated from resistance to sampler penetration.

Descriptive Term	Penetration Resistance*	Relative Density
Loose	0 - 10	0 to 40%
Medium Dense	10 - 30	40 to 70%
Dense	30 - 50	70 to 90%
Very Dense	Over 50	90 to 100%

* Blows/Foot, 140# Hammer, 30" Drop

FINE GRAINED SOILS (Major Portion Passing No. 200 Sieve)
Includes (1) inorganic and organic silts and clays, (2) sandy, gravelly or silty clays, and (3) clayey silts. Consistency is rated according to shearing strength, as indicated by penetrometer readings or by unconfined compression tests for soils with PI $\geq$ 10.

Descriptive Term	Cohesive Shear Strength Tons/Square Foot
Very Soft	Less Than 0.125
Soft	0.125 to 0.25
Firm	0.25 to 0.50
Stiff	0.50 to 1.00
Very Stiff	1.00 to 2.00
Hard	2.00 and Higher

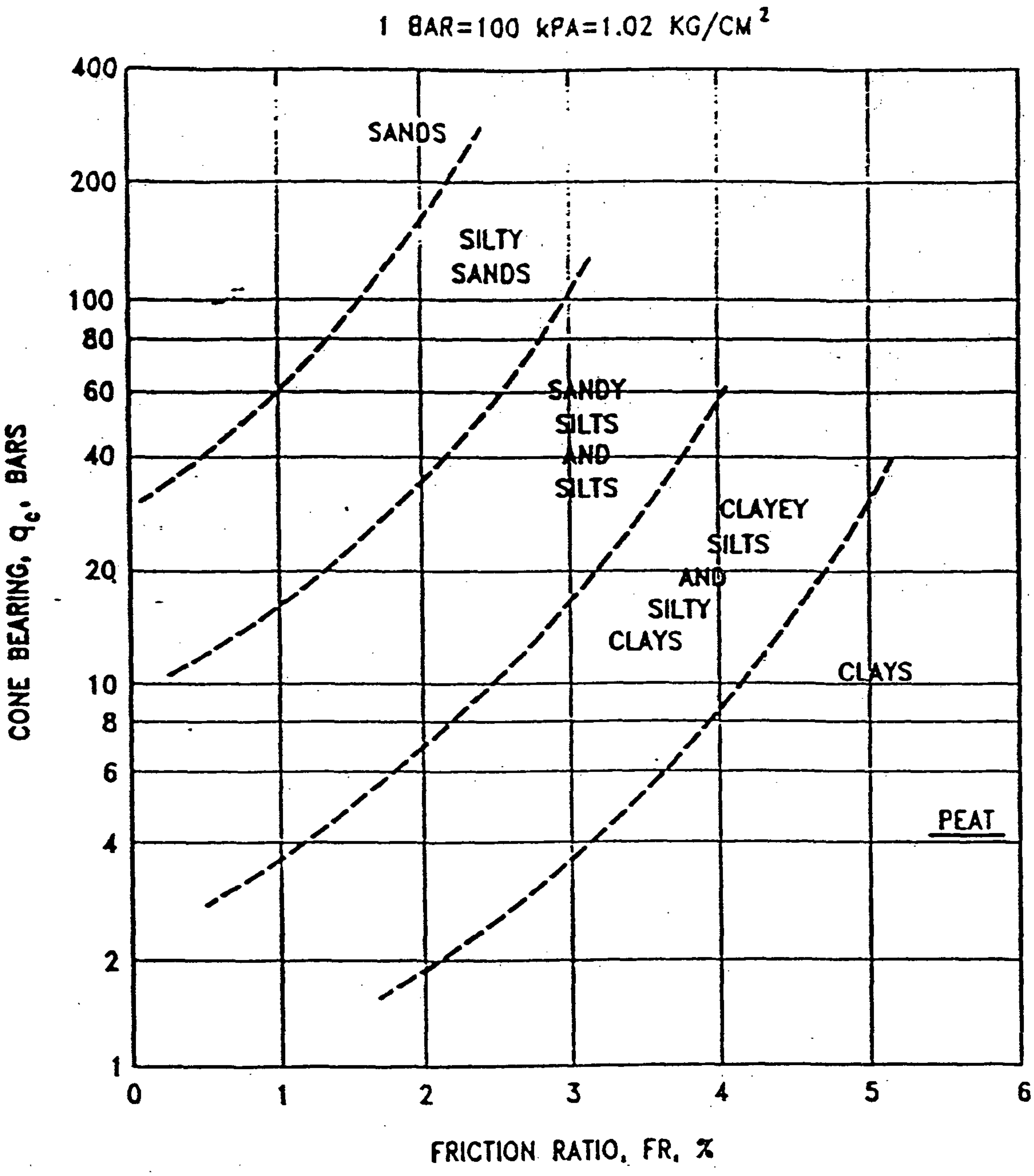
Note: Slickensided and fissured clay may have lower unconfined compressive strengths than shown above because of planes of weakness or shrinkage cracks; consistency ratings of such soils are based on hand penetrometer readings.

TERMS CHARACTERIZING SOIL STRUCTURE

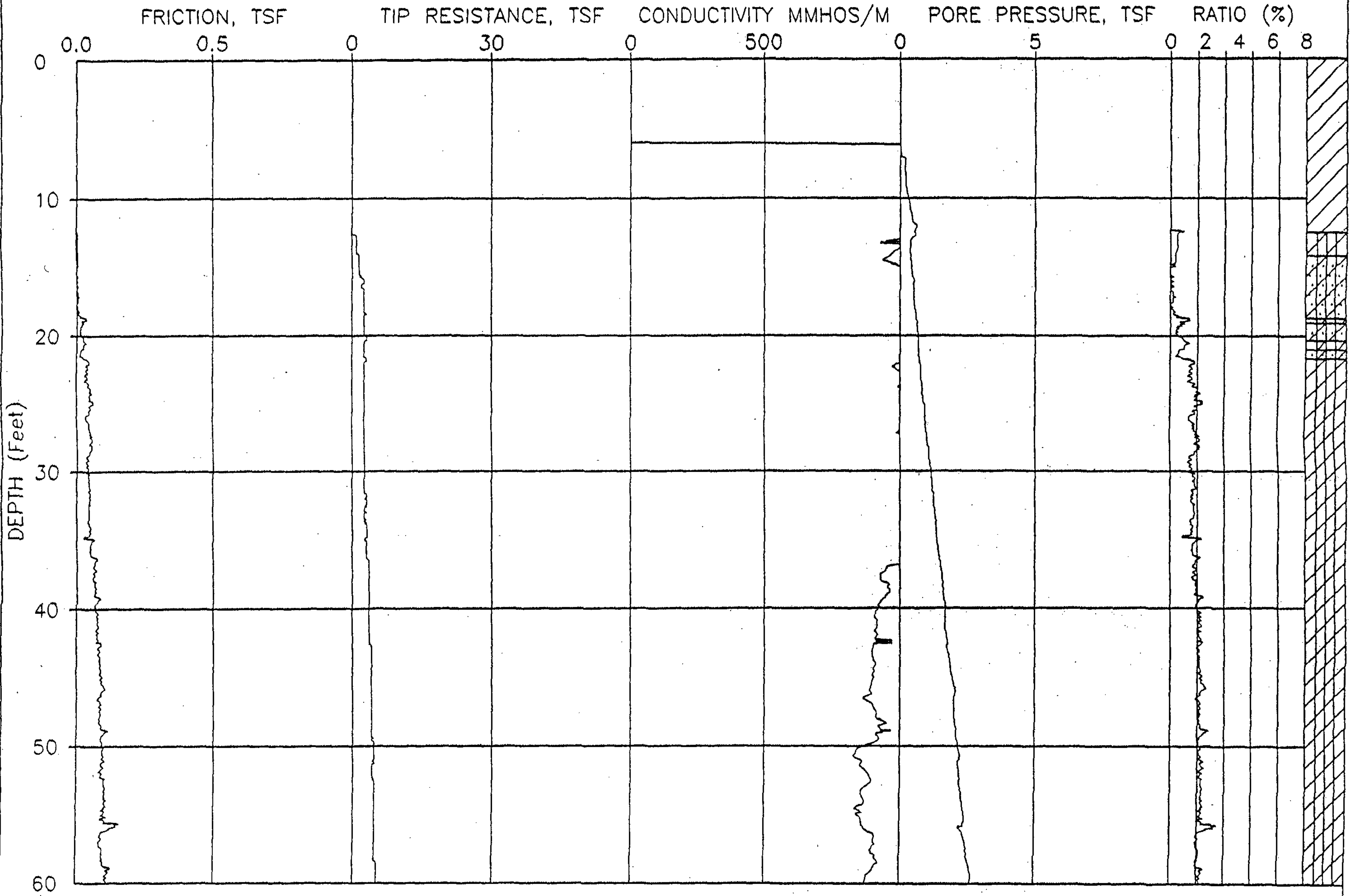
Parting:	paper thin in size
Seam:	1/8" to 3" thick
Layer:	greater than 3"
Fissured:	containing shrinkage cracks, frequently filled with fine sand or silt, usually more or less vertical
Sensitive:	pertaining to cohesive soils that are subject to appreciable loss of strength when remolded
Interbedded:	composed of alternate layers of different soil types
Laminated:	composed of thin layers of varying color and texture
Calcareous:	containing appreciable quantities of calcium carbonate
Well Graded:	having wide range in grain sizes and substantial amounts of all intermediate particle sizes
Poorly Graded:	predominantly of one grain size, or having a range of sizes with some intermediate size missing
Flocculated:	pertaining to cohesive soils that exhibit a loose knit or flakey structure
Slickensided:	having inclined planes of weakness that are slick and glossy in appearance.

Degree of Slickensided Development

Slightly Slickensided:	slickensides present at intervals of 1' to 2', soil does not easily break along these plates
Moderately Slickensided:	slickensides spaced at intervals of 1' to 2', soil breaks easily along these planes
Extremely Slickensided:	continuous and interconnected slickensides spaced at intervals of 4" to 12', soil breaks along the slickensides into pieces 3" to 6" in size
Intensely Slickensided:	slickensides spaced at intervals of less than 4", continuous in all directions; soil breaks down along planes into nodules 1/4" to 2" in size.



CAMPANELLA AND ROBERTSON CLASSIFICATION CHART (1983)



JOB NUMBER: 98-1068

CPT NUMBER: R-01

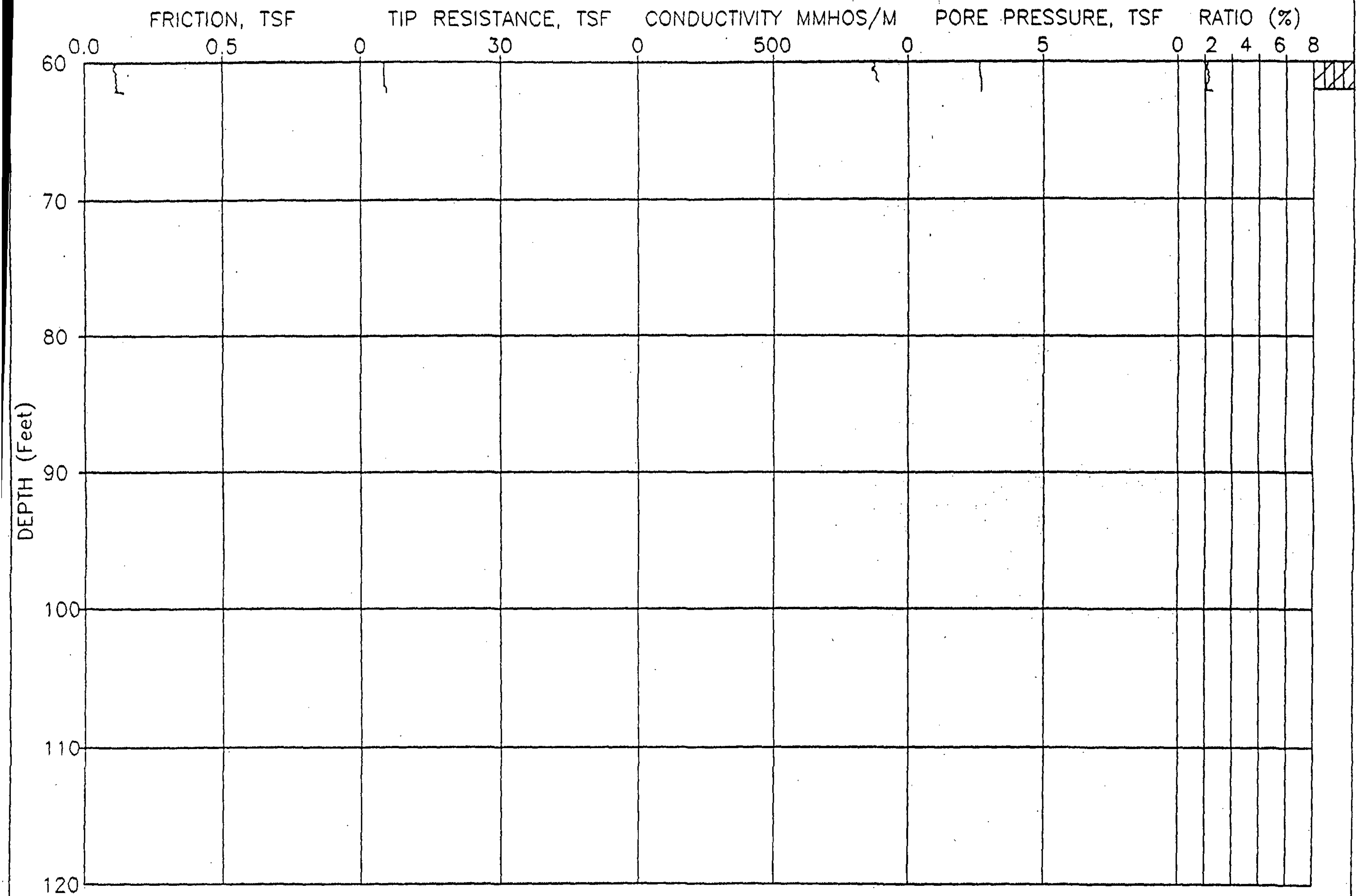
DATE: 11-30-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEGW603

PLATE: 1 OF 2

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1068

CPT NUMBER: R-01

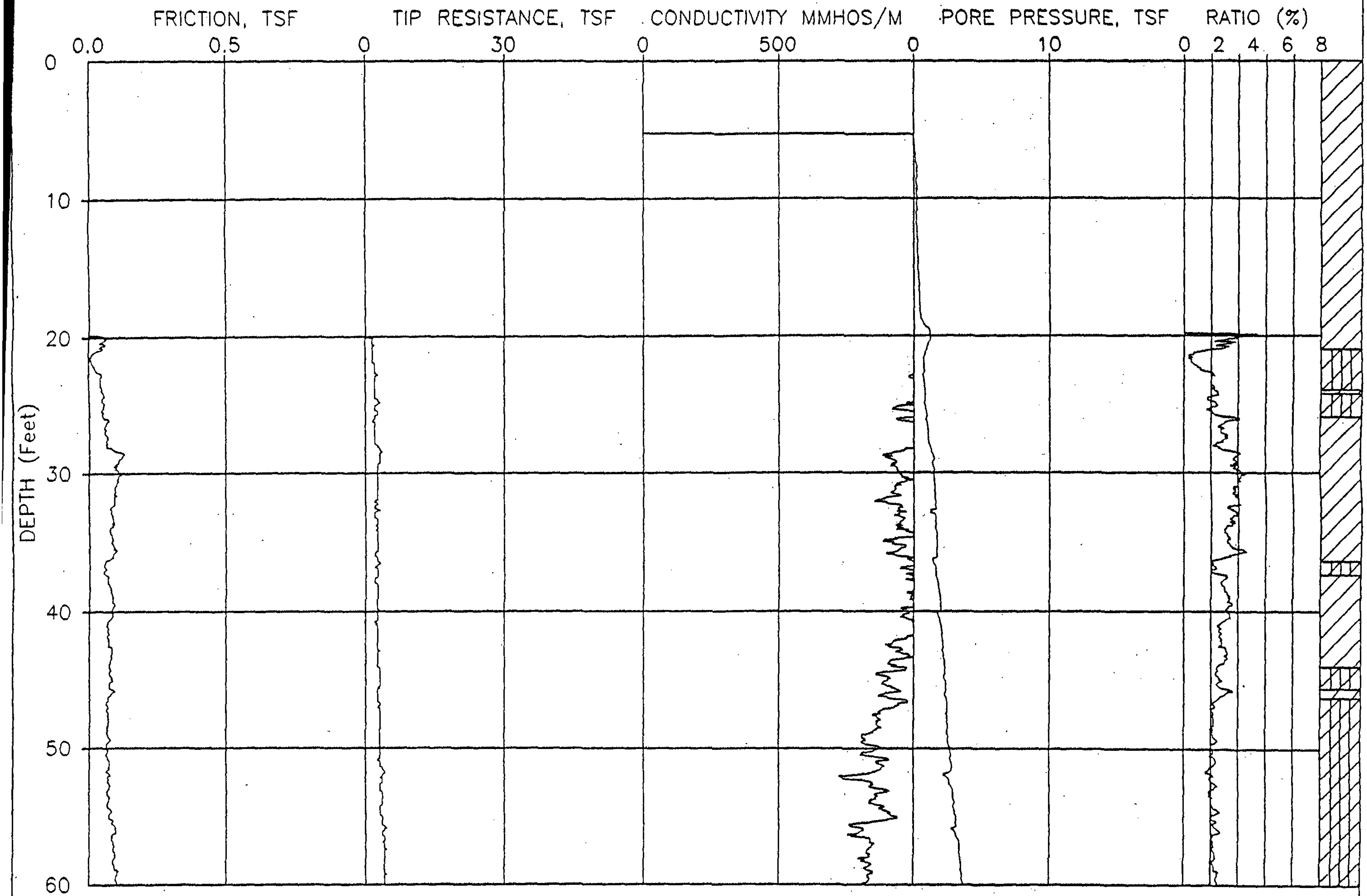
DATE: 11-30-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEGW603

PLATE: 2 OF 2

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1068

ELEVATION: 0.00

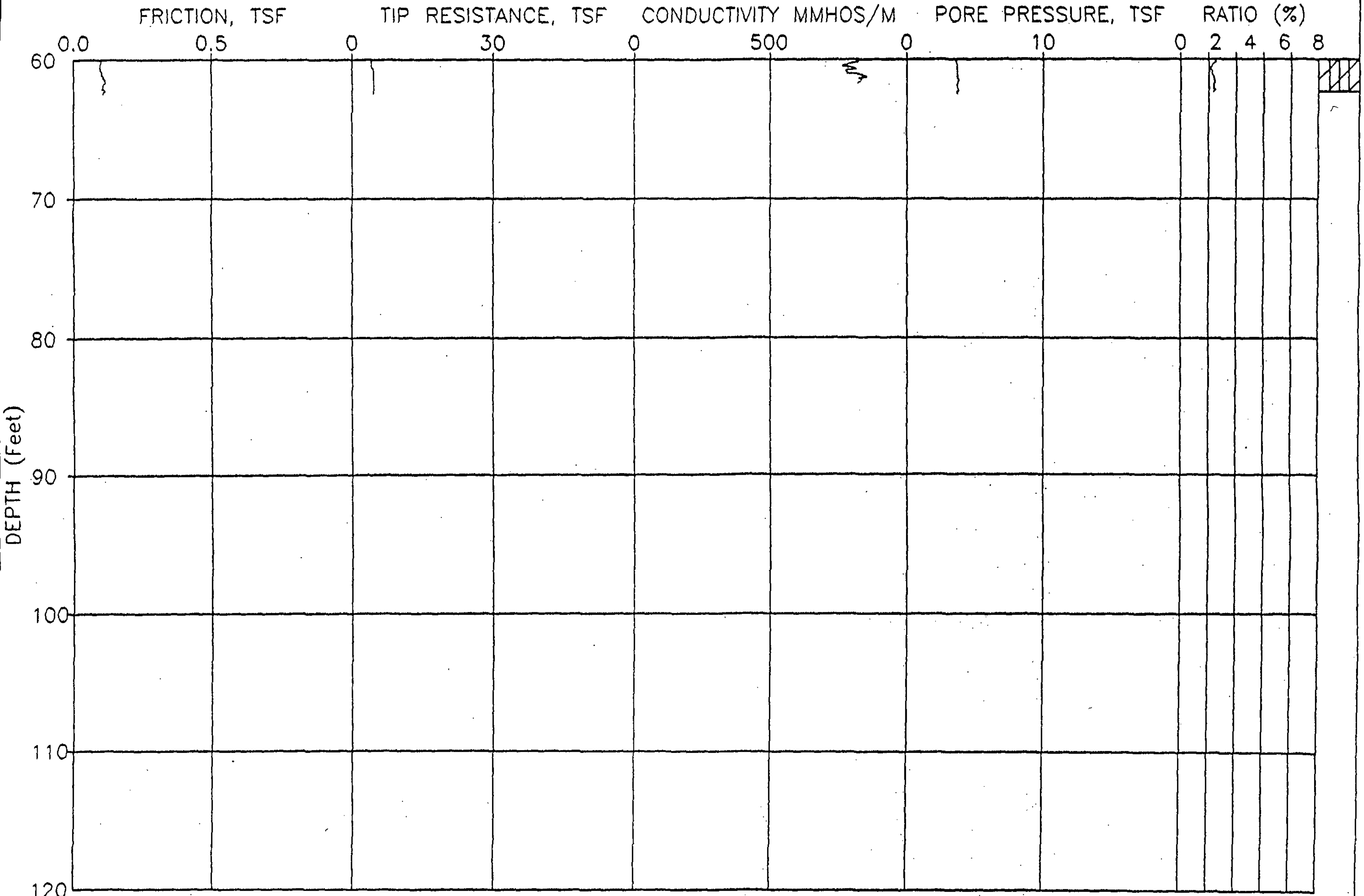
CPT NUMBER: R-02

CONE NUMBER: F7.5CKEGW603

DATE: 12-01-1998

PLATE: 1 OF 2

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1068

ELEVATION: 0.00

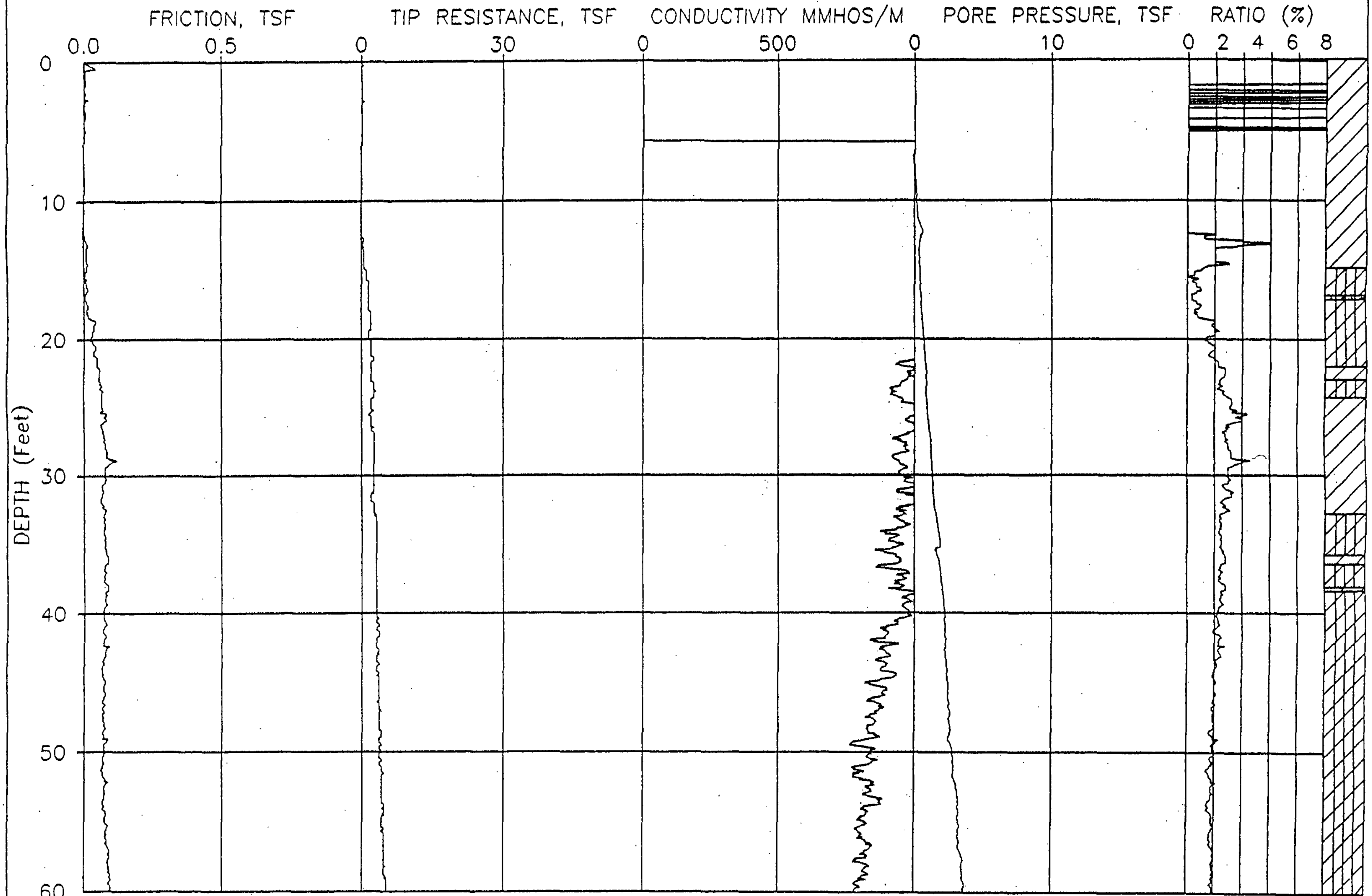
CPT NUMBER: R-02

CONE NUMBER: F7.5CKEGW603

DATE: 12-01-1998

PLATE: 2 OF 2

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1068

CPT NUMBER: R-03

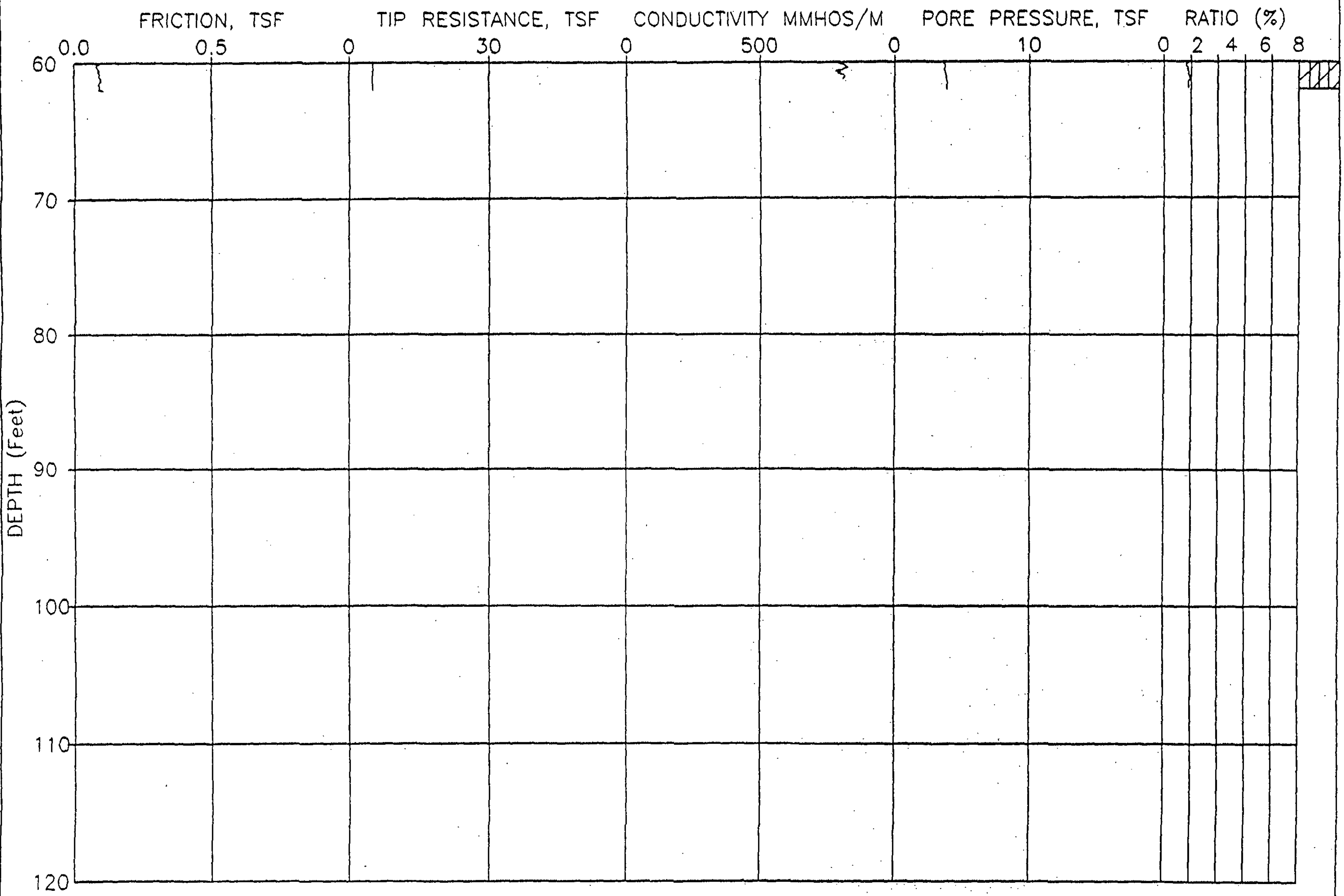
DATE: 12-01-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEGW603

PLATE: 1 OF 2

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1068

CPT NUMBER: R-03

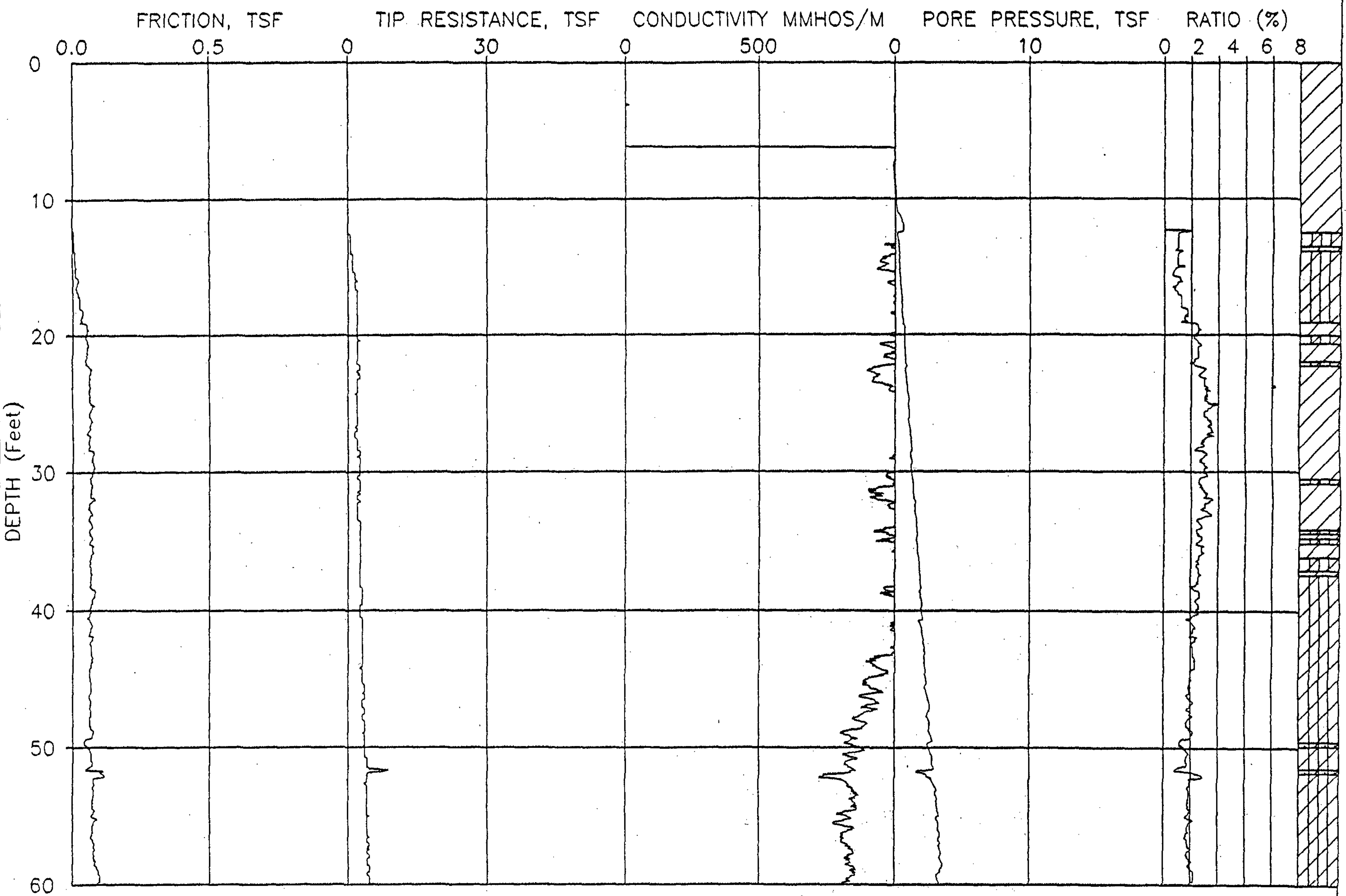
DATE: 12-01-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEGW603

PLATE: 2 OF 2

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1068

ELEVATION: 0.00

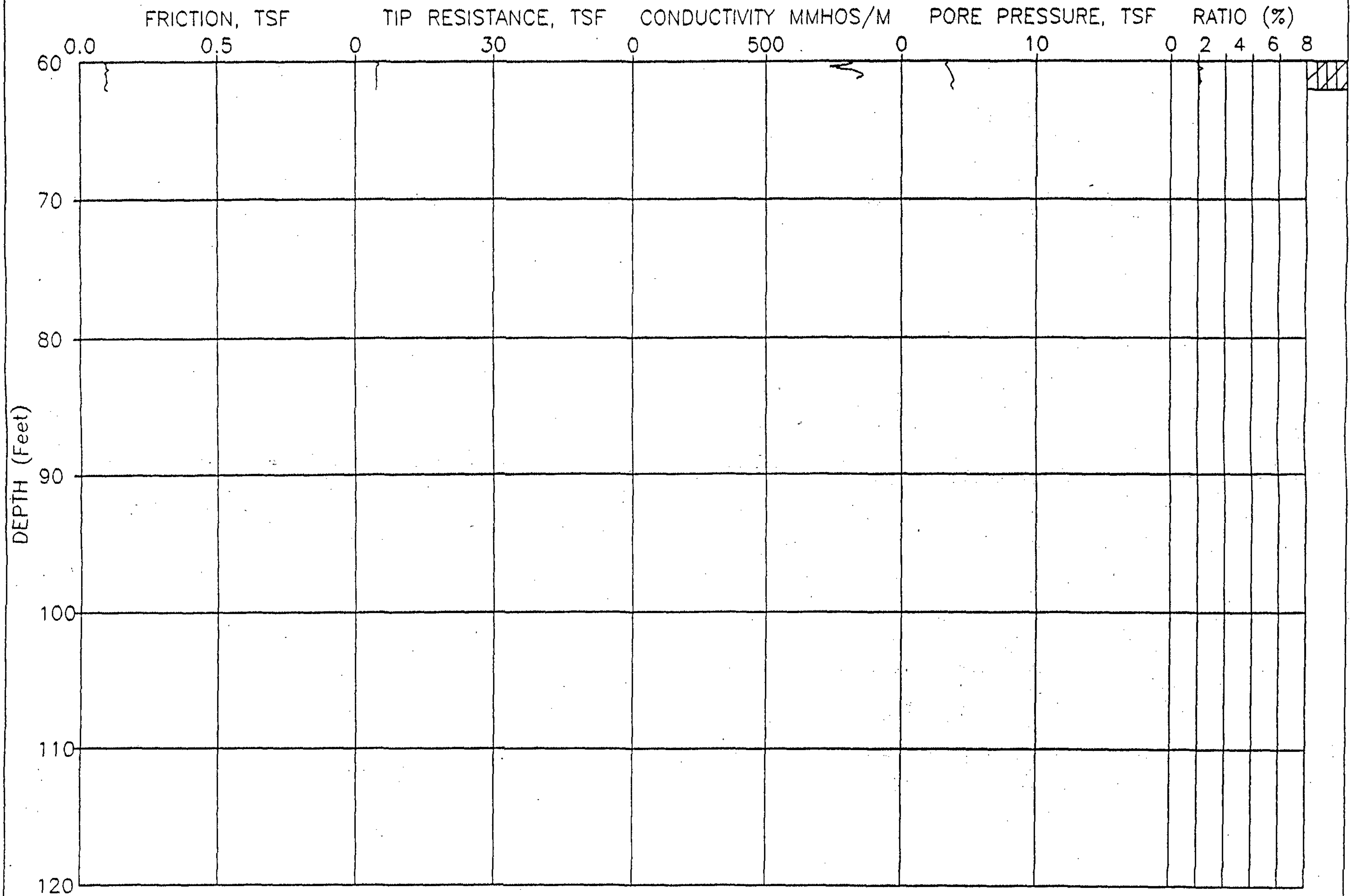
CPT NUMBER: R-04

CONE NUMBER: F7.5CKEGW603

DATE: 12-01-1998

PLATE: 1 OF 2

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1068

ELEVATION: 0.00

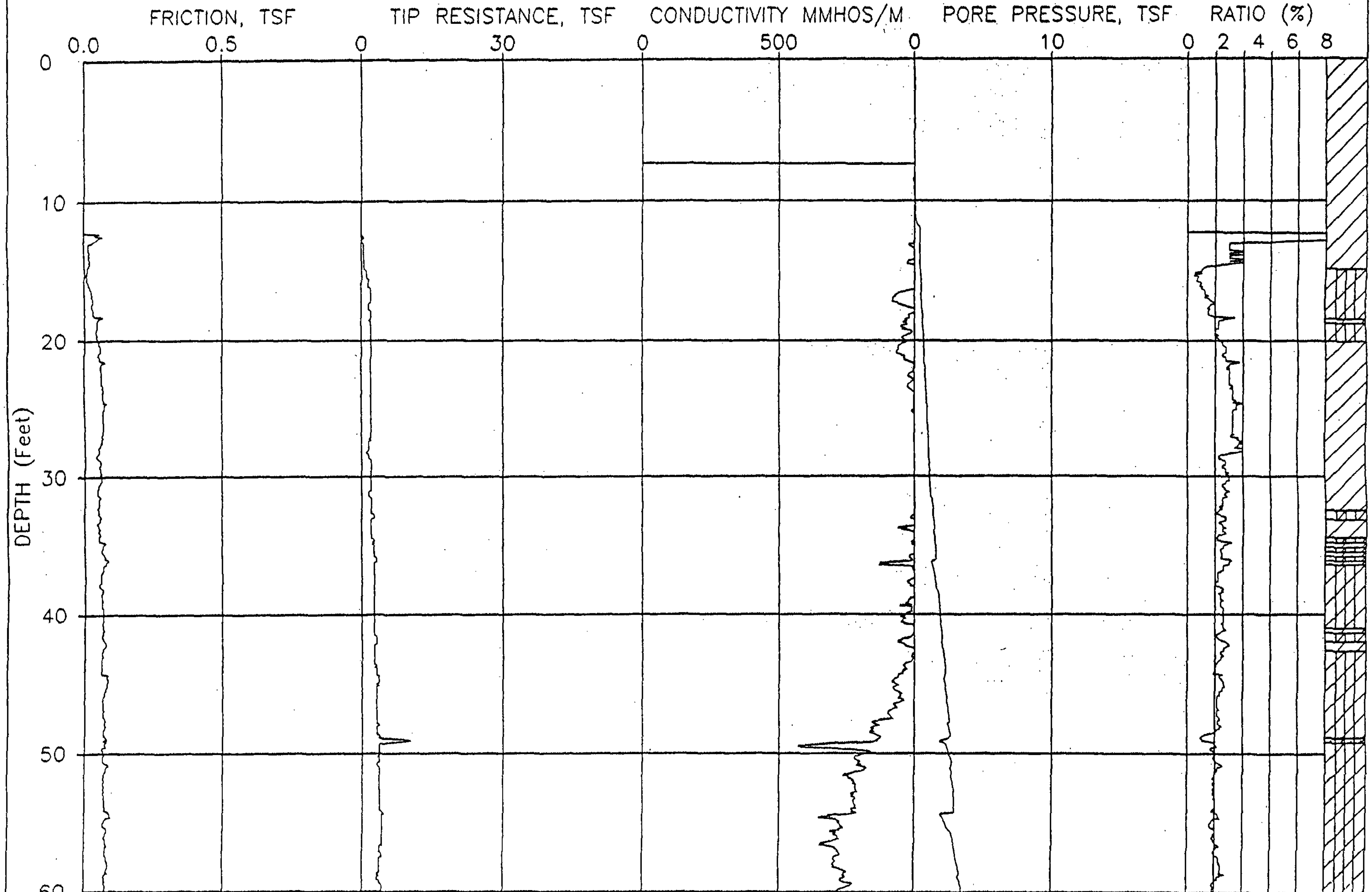
CPT NUMBER: R-04

CONE NUMBER: F7.5CKEGW603

DATE: 12-01-1998

PLATE: 2 OF 2

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1068

ELEVATION: 0.00

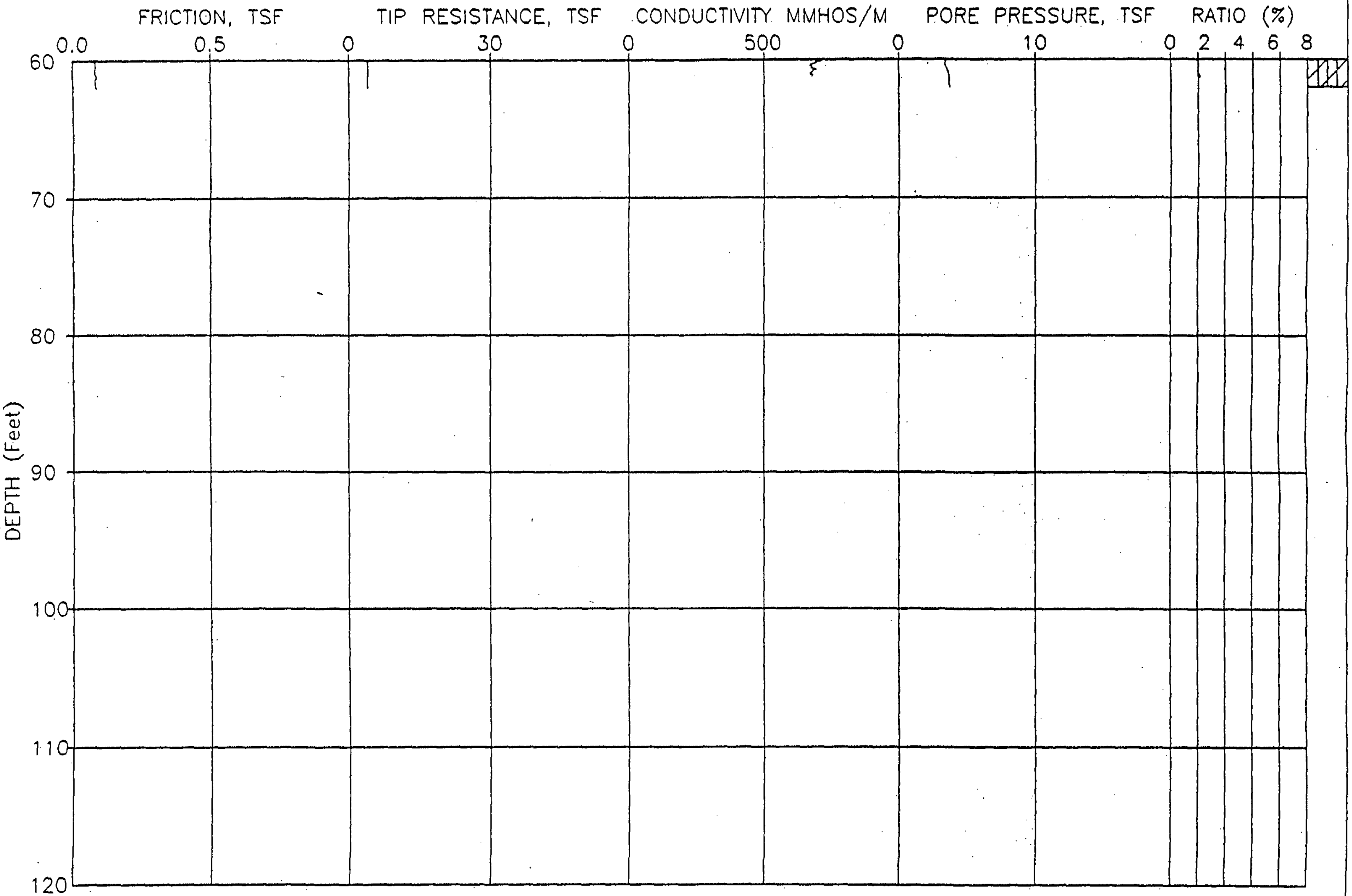
CPT NUMBER: R-05

CONE NUMBER: F7.5CKEGW603

DATE: 12-01-1998

PLATE: 1 OF 2

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1068

ELEVATION: 0.00

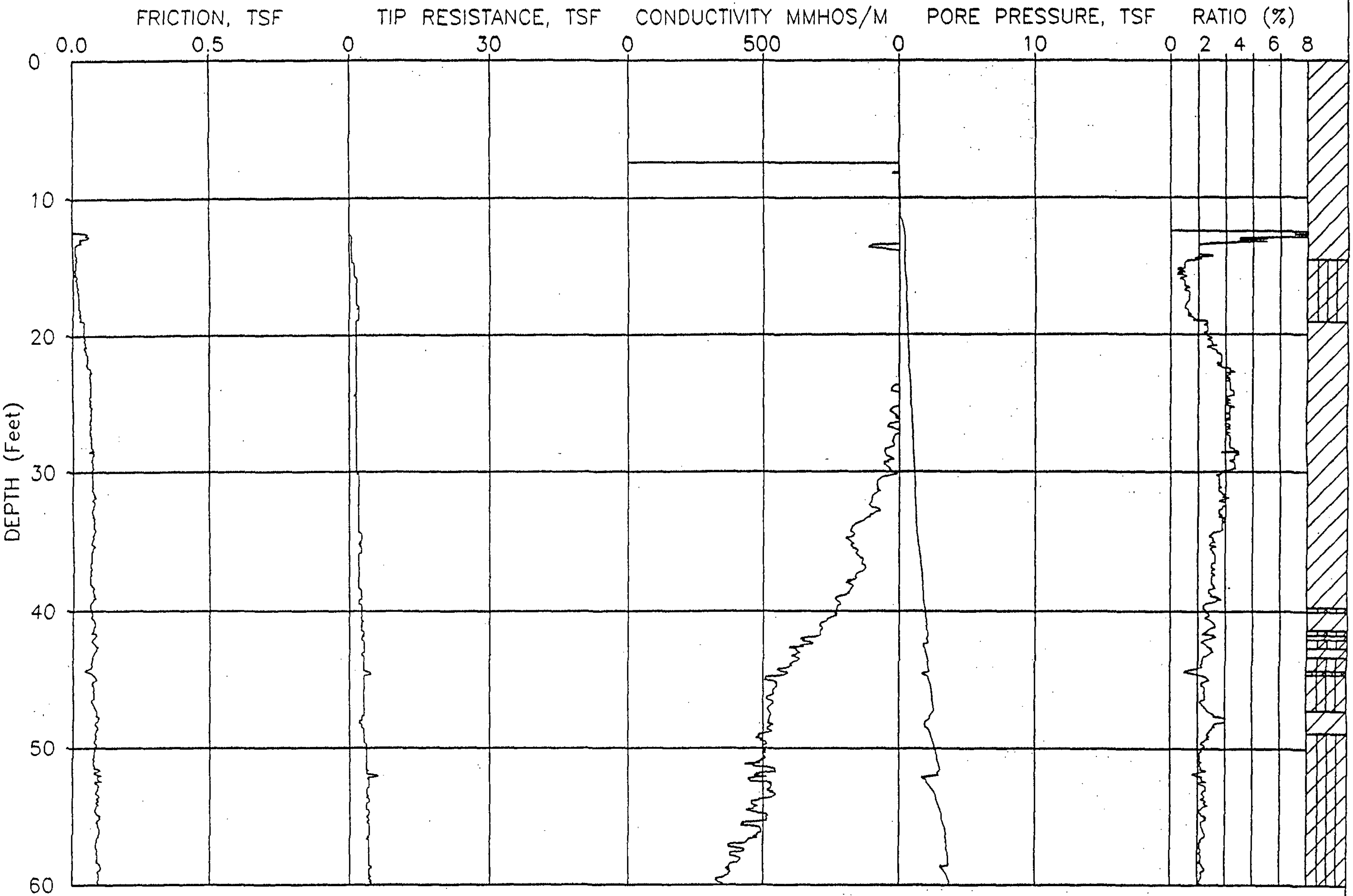
CPT NUMBER: R-05

CONE NUMBER: F7.5CKEGW603

DATE: 12-01-1998

PLATE: 2 OF 2

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1068

ELEVATION: 0.00

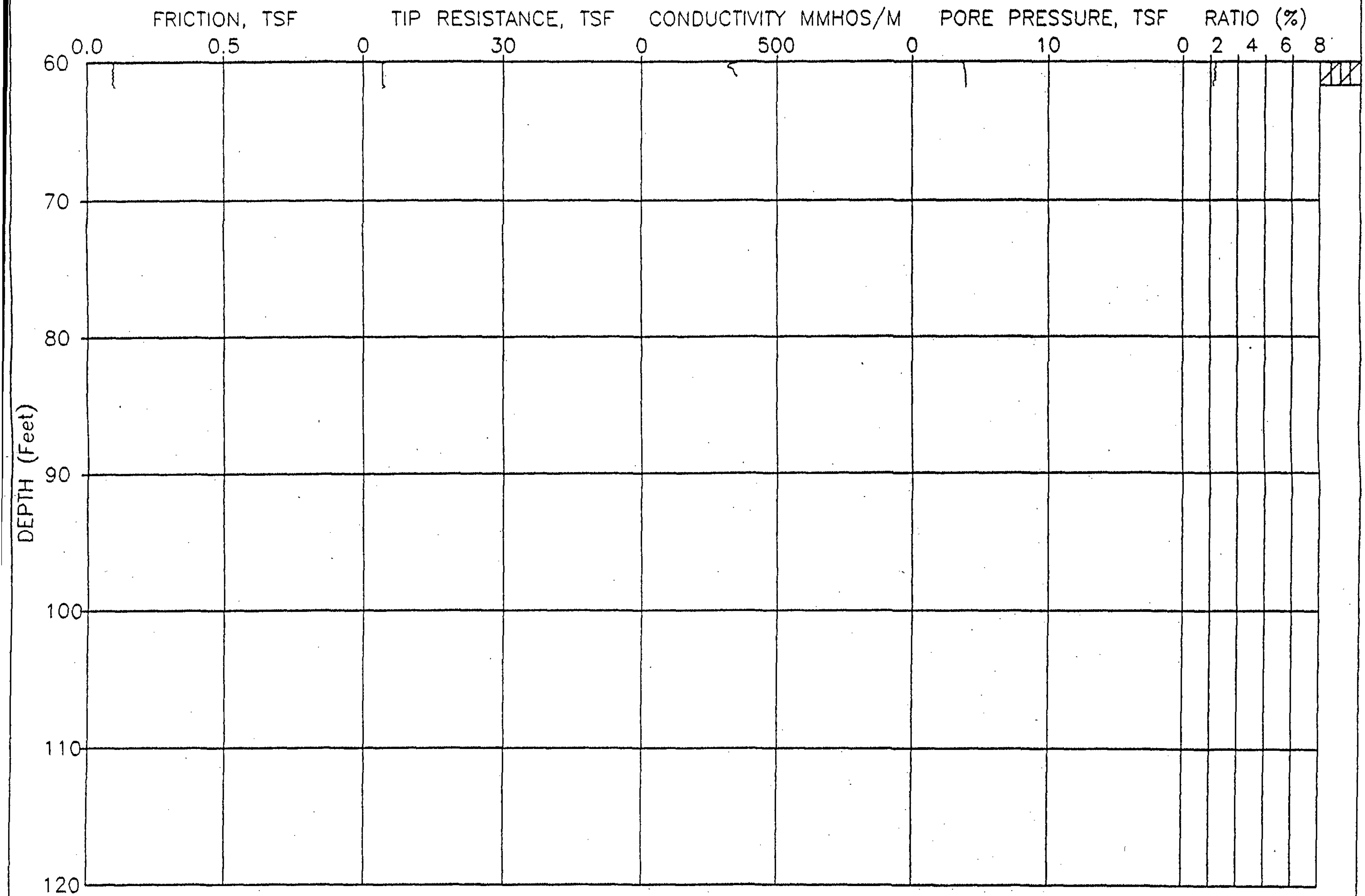
CPT NUMBER: R-06

CONE NUMBER: F7.5CKEGW603

DATE: 12-01-1998

PLATE: 1 OF 2

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98–1068

CPT NUMBER: R–06

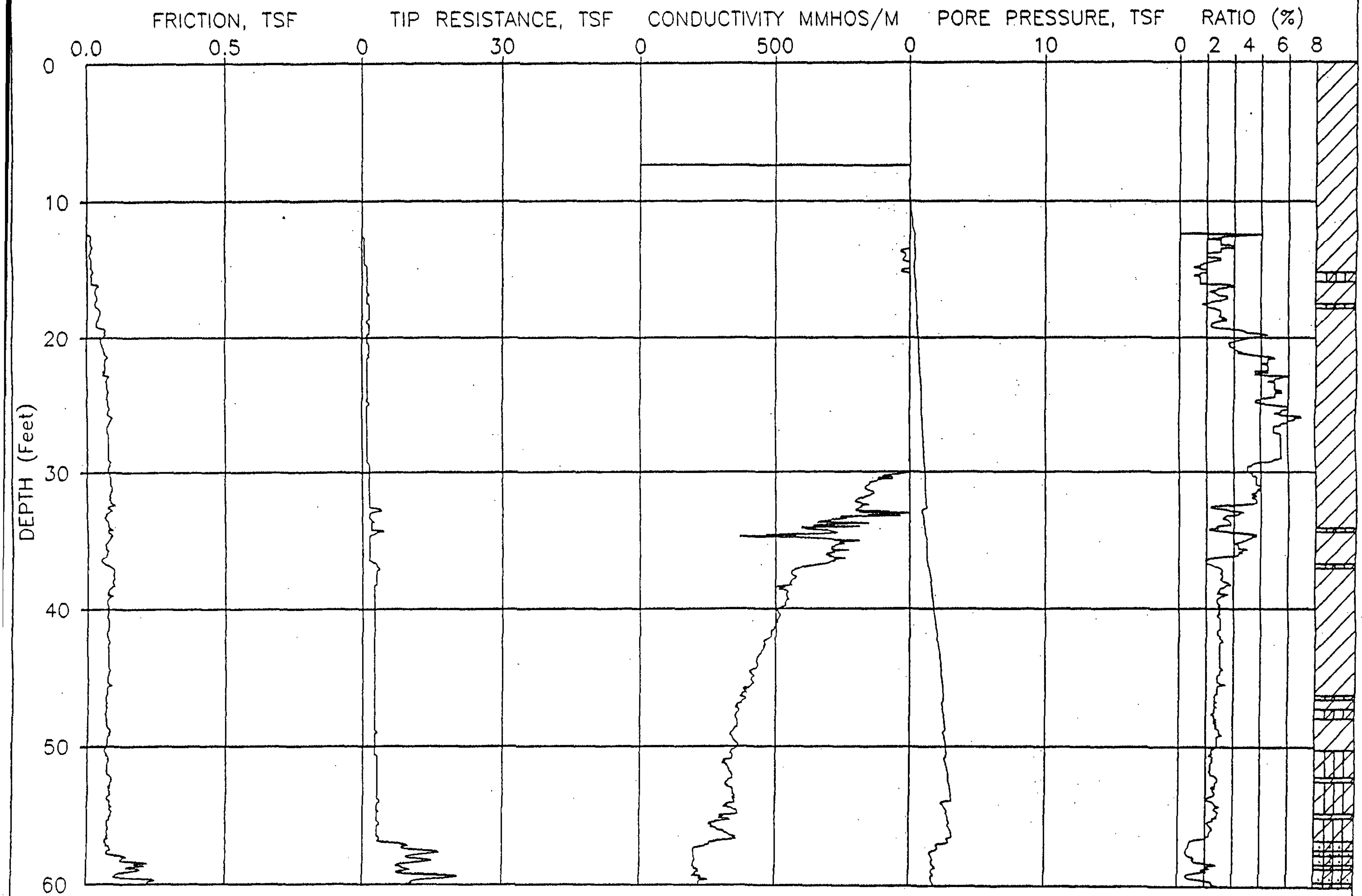
DATE: 12–01–1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEGW603

PLATE: 2 OF 2

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1068

ELEVATION: 0.00

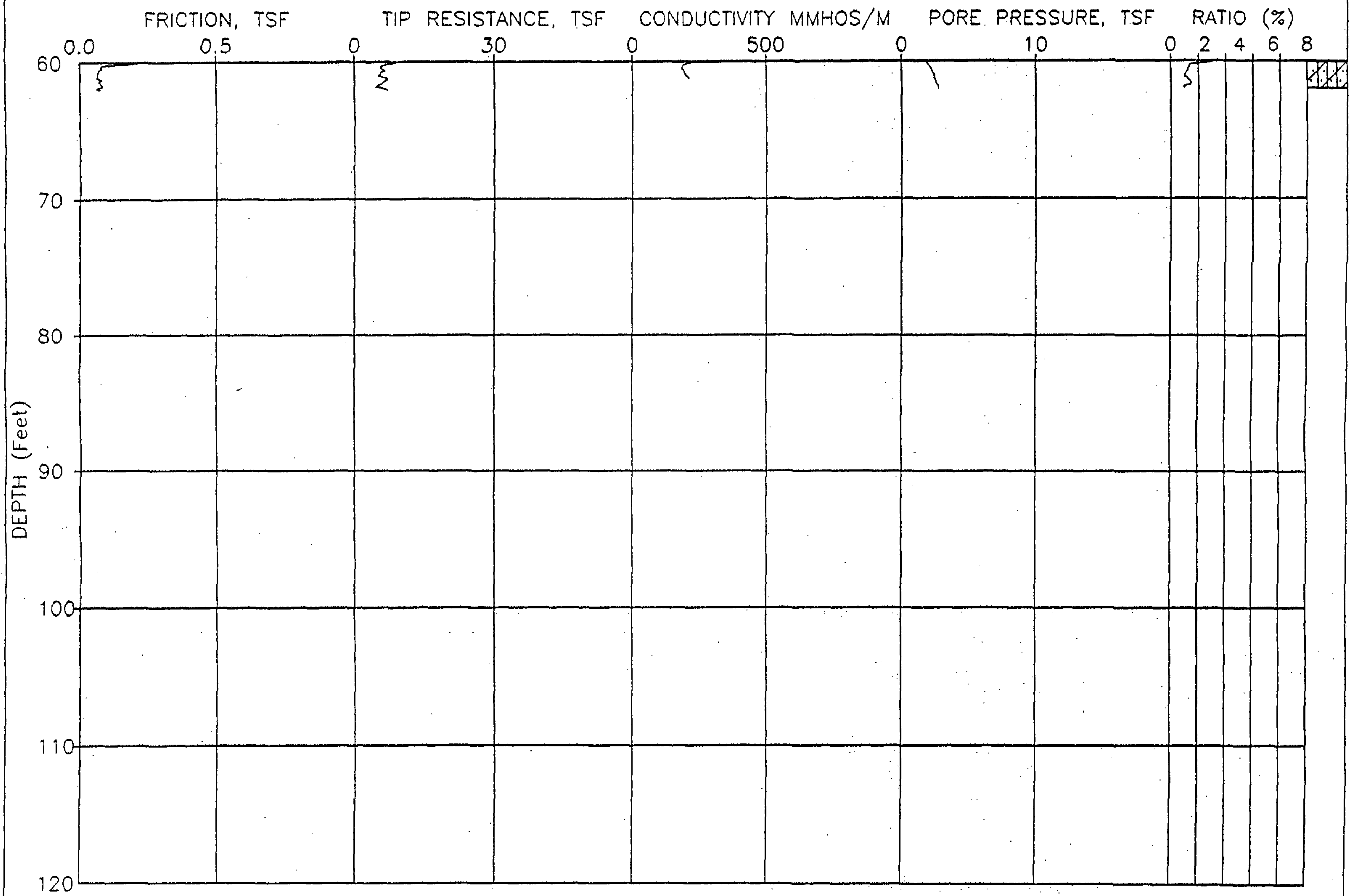
CPT NUMBER: R-07

CONE NUMBER: F7.5CKEGW603

DATE: 12-02-1998

PLATE: 1 OF 2

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1068

ELEVATION: 0.00

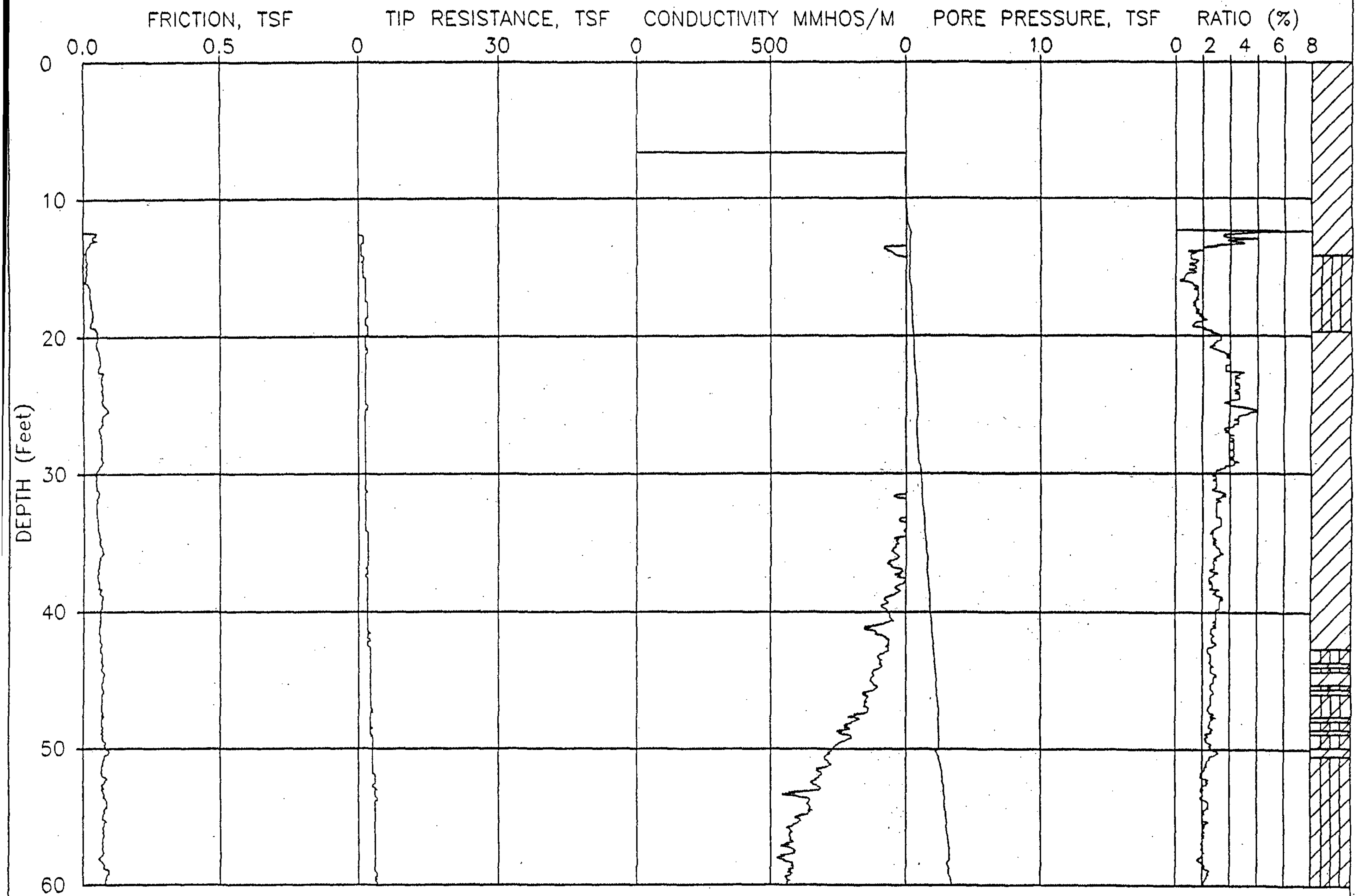
CPT NUMBER: R-07

CONE NUMBER: F7.5CKEGW603

DATE: 12-02-1998

PLATE: 2 OF 2

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1068

CPT NUMBER: R-08

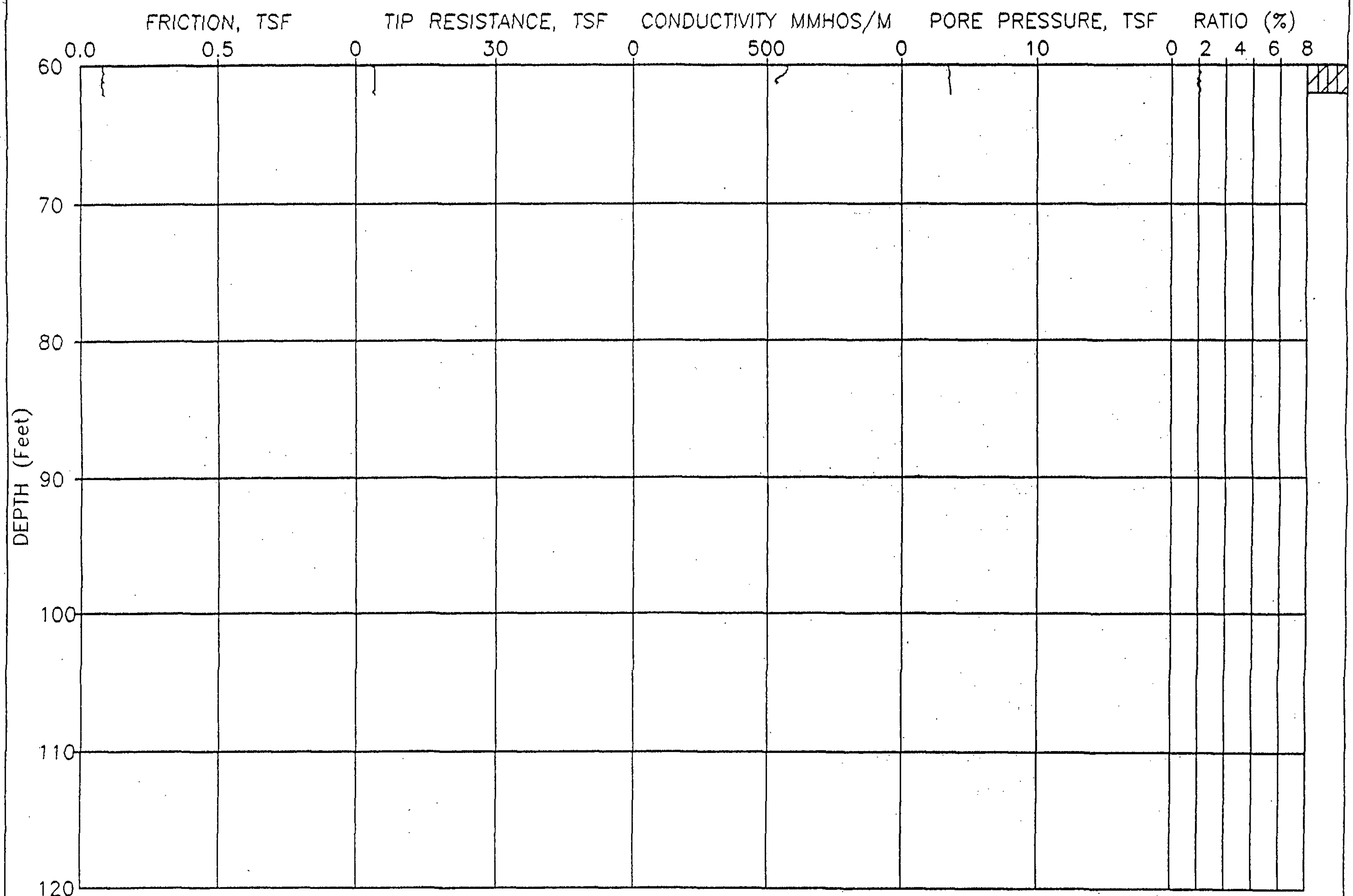
DATE: 12-02-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEGW603

PLATE: 1 OF 2

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1068

ELEVATION: 0.00

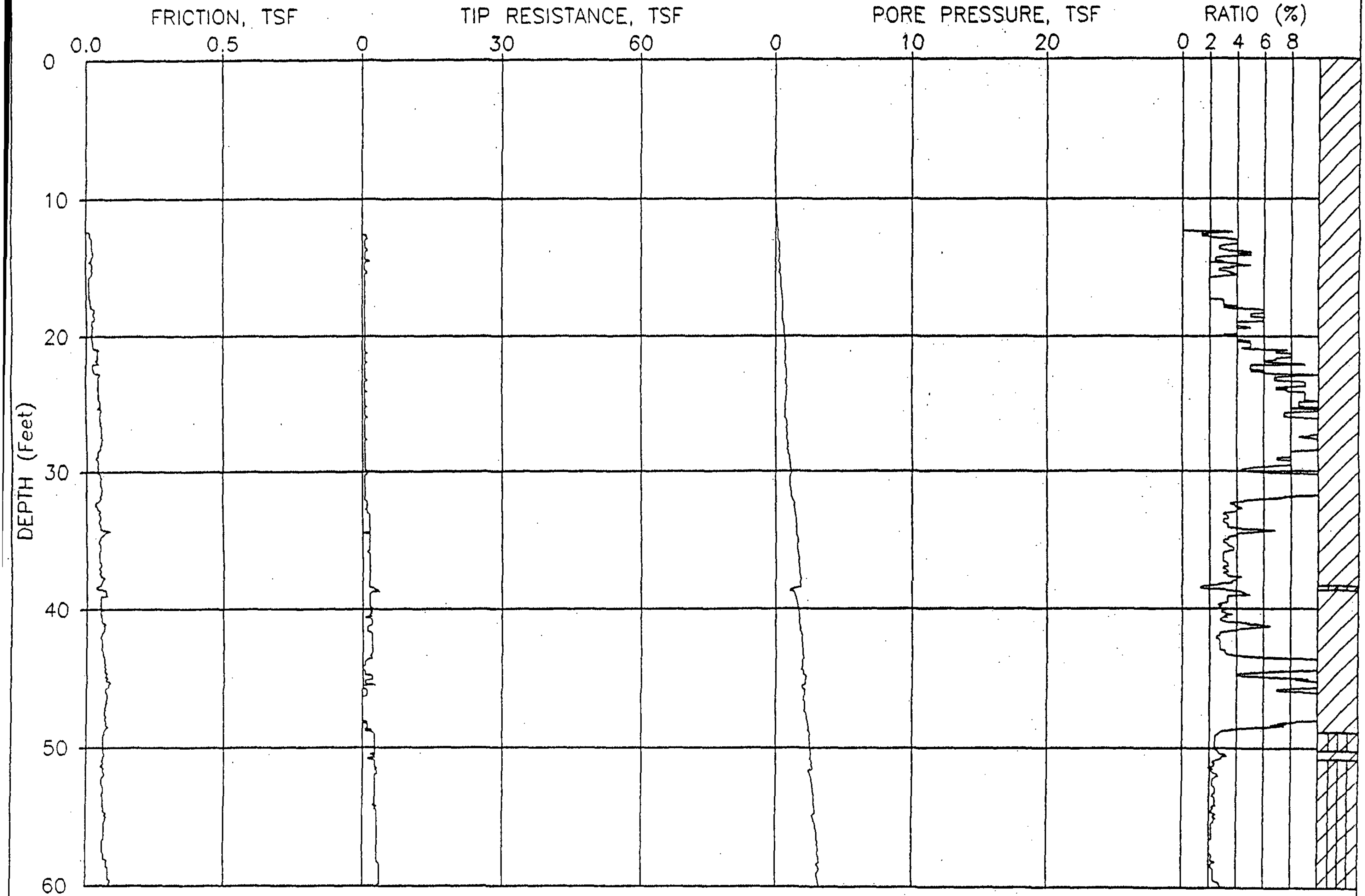
CPT NUMBER: R-08

CONE NUMBER: F7.5CKEGW603

DATE: 12-02-1998

PLATE: 2 OF 2

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1068

ELEVATION: 0.00

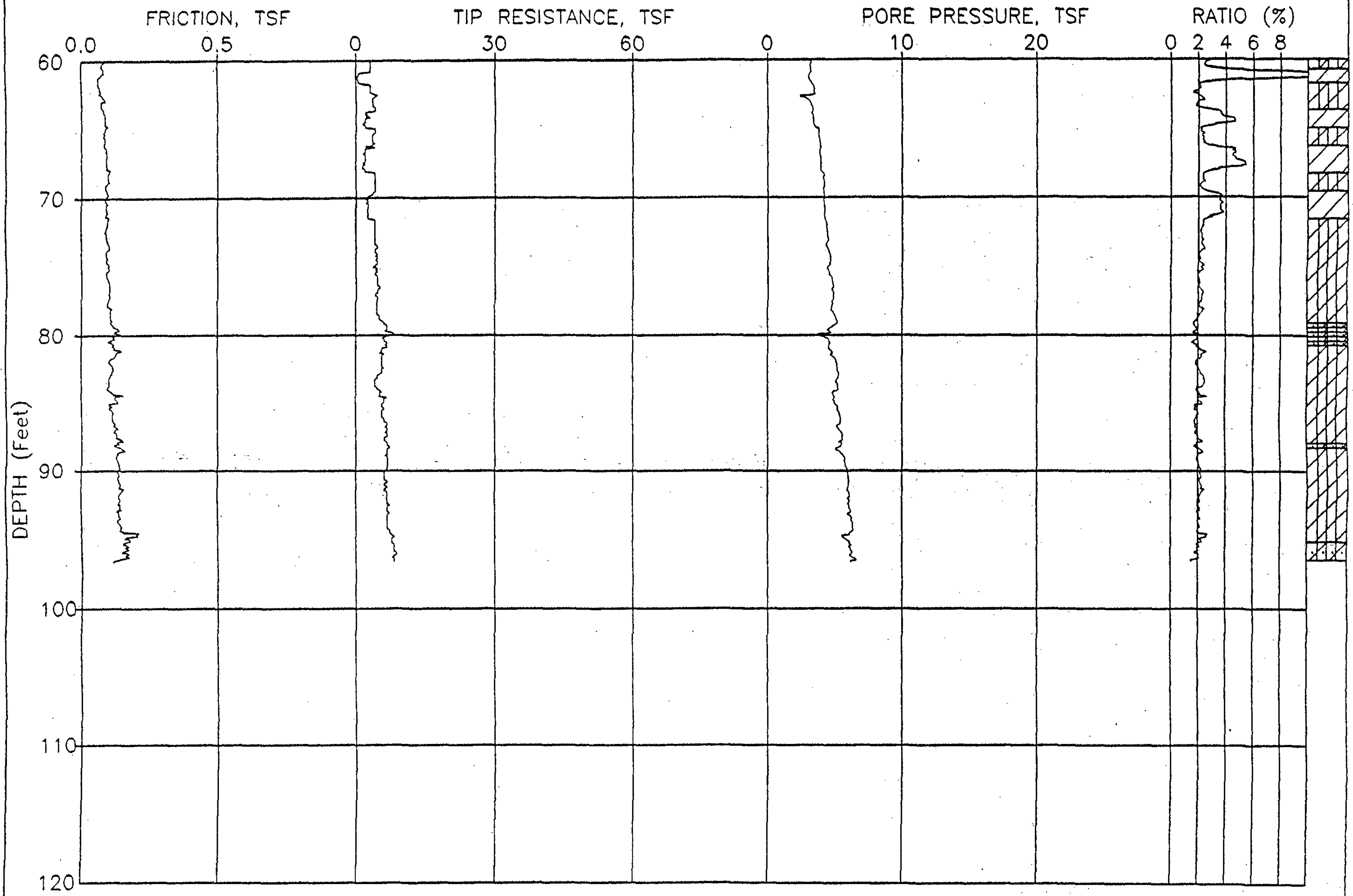
CPT NUMBER: R-08A

CONE NUMBER: F7.5CKEVW1105

DATE: 12-02-1998

PLATE: 1 OF 2

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1068

ELEVATION: 0.00

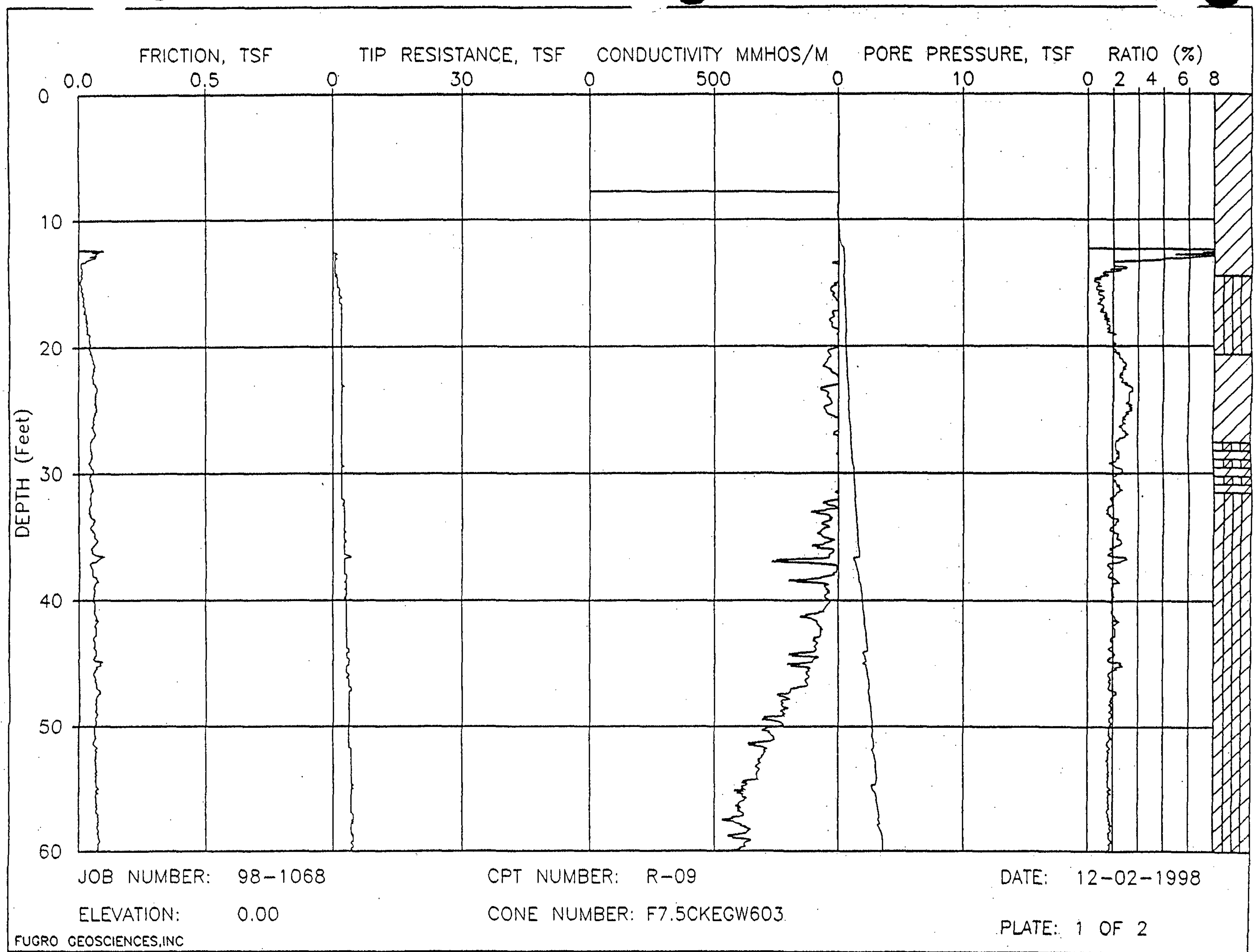
CPT NUMBER: R-08A

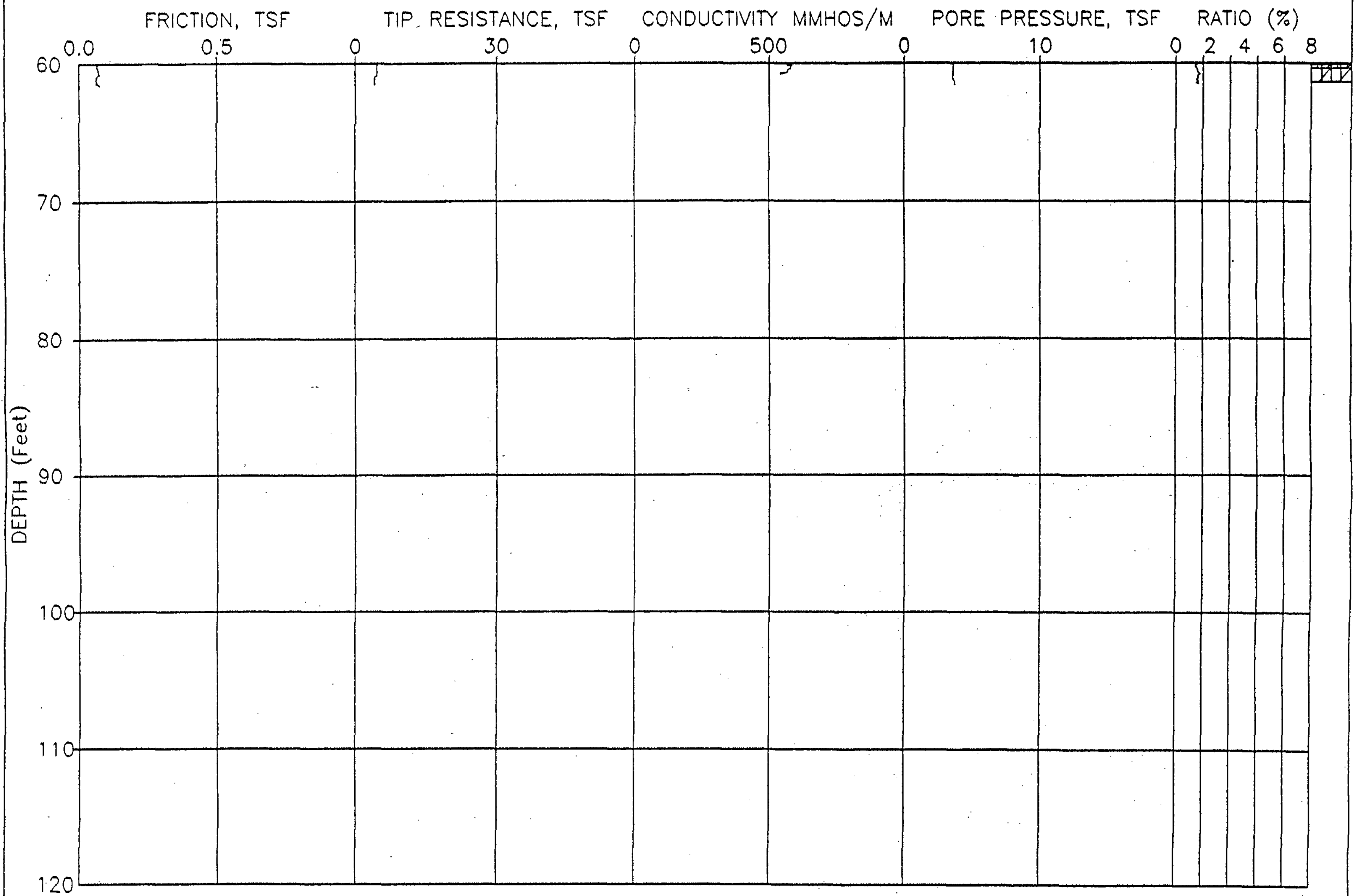
CONE NUMBER: F7.5CKEVW1105

DATE: 12-02-1998

PLATE: 2 OF 2

FUGRO GEOSCIENCES,INC


FRICTION, TSF
0.0
0.5
TIP RESISTANCE, TSF
0
30
CONDUCTIVITY MMHOS/M
0
500
PORE PRESSURE, TSF
0
10
RATIO (%)
0
2
4
6
8
DEPTH (Feet)
0
10
20
30
40
50
60
JOB NUMBER: 98-1068
ELEVATION: 0.00
CPT NUMBER: R-09
CONE NUMBER: F7.5CKEGW603
DATE: 12-02-1998
PLATE: 1 OF 2
FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1068

CPT NUMBER: R-09

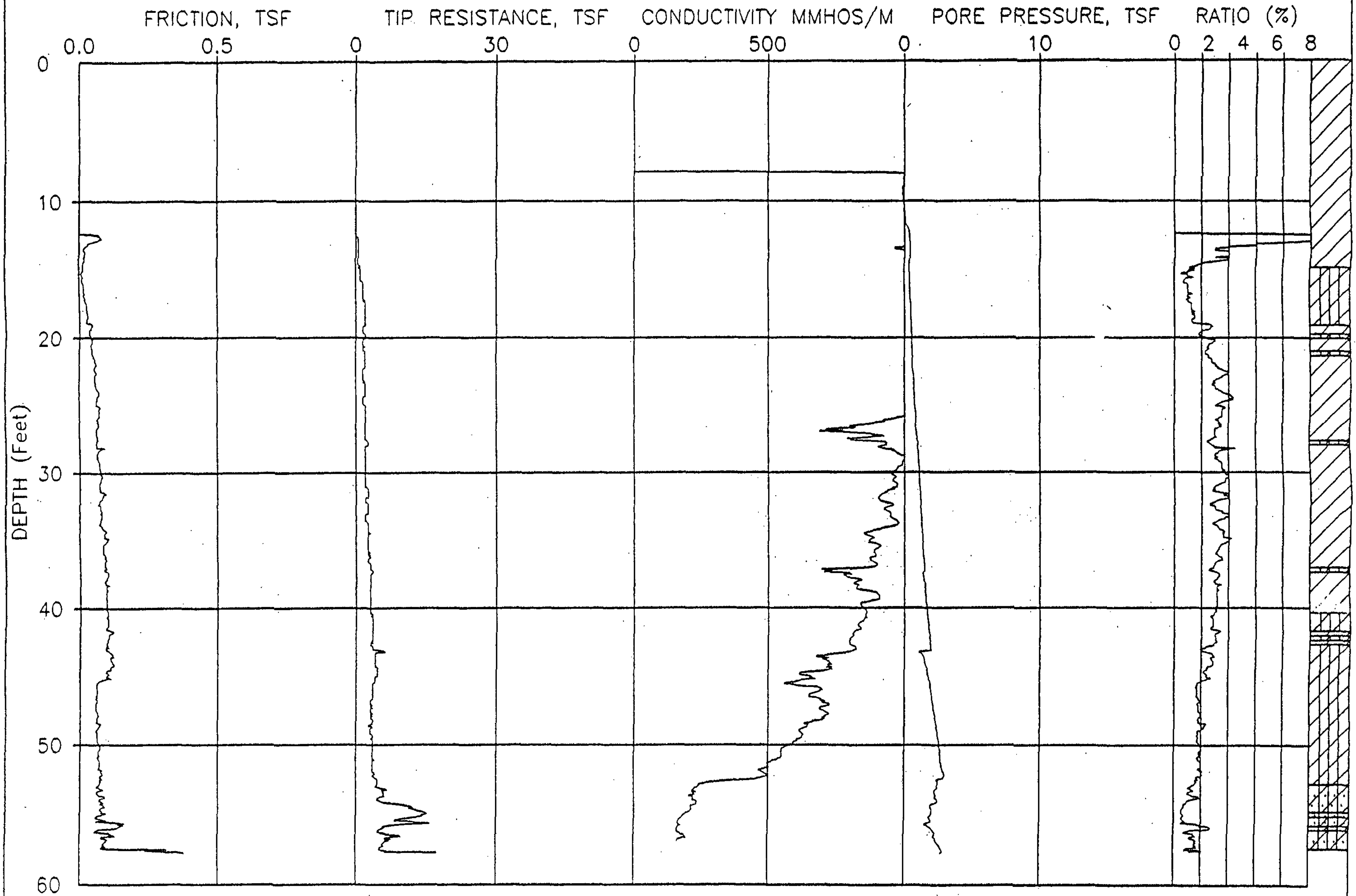
DATE: 12-02-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEGW603

PLATE: 2 OF 2

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1068

CPT NUMBER: R-10

DATE: 12-02-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEGW603

PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC

FUGRO GEOSCIENCES, INC.

6105 Rookin
Houston, TX 77074
Phone : 713-778-5580
Fax : 713-778-5501

December 11, 1998
Report Number: 0304-1066

GeoSyntec Consultants
1100 Lake Hearn Drive
Atlanta, Georgia 30342

Attn.: Mr. John Brandes

DATA REPORT
CONE PENETRATION AND
RAPID OPTICAL SCREENING TOOL TESTING
ONSHORE INVESTIGATION
EDGEWATER, NEW JERSEY

Dear Mr. Brandes:

Fugro Geosciences (Fugro) is pleased to present this data report for Cone Penetration (CPT) and Rapid Optical Screening Tool (ROST™) testing at the above-referenced site. CPT/ROST™ provided continuous characterization of stratigraphy and petroleum hydrocarbon distribution at the testing locations. A description of the CPT and ROST™ technologies and a discussion of general ROST™ data interpretation follows. CPT and ROST™ logs are included as attachments.

Cone Penetration Testing

CPT was performed simultaneously with each ROST™ sounding and yielded real-time stratigraphic data. CPT is a proven method for rapidly evaluating the physical characteristics of unconsolidated soils. It is based on the resistance to penetration of an electronically-instrumented cone which is continuously advanced into the subsurface. In accordance with ASTM Standard D5778-95, the cone was advanced at a rate of two centimeters per second with the driving force provided by hydraulic rams.

The CPT cone used at this site had an apex angle of 60 degrees with a base area of 15 square centimeters (cm^2), and friction sleeve with a surface area of 200 cm^2. The standard geotechnical sensors within the cone measure tip resistance and sleeve friction in tons per square foot (TSF). The combined data from the tip resistance and sleeve friction form the basis of the soil classification (e.g., sand, silt, clay, etc.). Please note that due to damage caused by penetration through rubble, some tests were performed with a standard cone penetrometer (measurement of tip and sleeve resistances), piezocone penetrometer (measurement of pore water pressure, tip and sleeve resistances) and supercone penetrometer (measurement of pore water pressure, conductivity , tip and sleeve resistances).

Soil stratigraphy was identified using Campanella and Robertson's Simplified Soil Behavior Chart. Please note that because of the empirical nature of the soil behavior chart, the soil identification should be verified locally.

ROST™ Testing

Fugro Geosciences' ROST™ Laser-Induced Fluorescence system was used for this investigation to screen soils for petroleum hydrocarbon materials containing aromatic hydrocarbon constituents. The system consists of a tunable laser mounted in the CPT truck that is connected to a down-hole sensor. The down-hole sensor consists of a small diameter sapphire window mounted flush with the side of the cone penetrometer probe.

The laser and associated equipment transmit 50 pulses of light per second to the sensor through a fiber optic cable. The wavelength of the pulsed excitation light is tunable and can be set to wavelengths of 266 nanometers (nm) or to wavelengths between 280 and 300 nm. An excitation wavelength of 290 nm was used for each test during this project.

The laser light passes through the sapphire window and is absorbed by aromatic hydrocarbon molecules in contact with the window, as the probe is advanced. This addition of energy (photons) to the aromatic hydrocarbons causes them to fluoresce. A portion of the fluorescence emitted from any encountered aromatic constituents is returned through the sapphire window and conveyed by a second fiber optic cable to a detection system within the CPT rig. The emission data resulting from the pulsed laser light is averaged into one reading per one second interval (approximately one reading per 2 cm vertical interval) and is recorded continuously. ROST™ may be operated in single or multi-wavelength mode, depending on project objectives. For this project, ROST™ was operated in multi-wavelength mode (MWL).

Multi-Wavelength Mode (MWL). In MWL mode, the emitted fluorescence is measured simultaneously at four monitoring wavelengths (340, 390, 440, and 490 nm). The four monitoring wavelengths cover the range of light produced by light fuels through heavy contaminants such as coal tar and creosote and enhance detection of widely ranging product types. The emission data is reported continuously as a total of the fluorescence intensity recorded at each of the four wavelengths. The total fluorescence intensity data is presented in real-time on a computer monitor as a graph of fluorescence intensity versus depth (FVD).

The relative percentage of fluorescence measured at each of the monitoring wavelengths (340, 390, 440, and 490 nm) is plotted continuously on the ROST™ logs as four continuous "color bands". The width of each color band represents the relative percentage of fluorescence emitted by the contaminant at each of the monitoring wavelengths (340, 390, 440, and 490 nm). For general interpretation purposes, lighter aromatic hydrocarbon molecules will emit fluorescence at shorter wavelengths and heavier, longer chained hydrocarbons will emit fluorescence at longer wavelengths.

By comparing the relative percentage ratios generated by known product samples with field data, interpretations of product type can often be made. Utility of product identification is often dependent on the degree of similarity between the reference product and the in-situ product composition.

Reference Solution. The fluorescence intensity of a reference solution placed on the sapphire window was measured immediately prior to conducting each test. This reference solution measurement serves two purposes. First, as a quality control check, the solution is used to ensure that the performance of the system is within specifications. Second, it allows for normalization of the data from different test locations for variation in laser power, operating conditions, and monitored emission wavelength. The reference solution used for this project was the standard M1 reference, which is a proprietary PHC containing solution. M1 provides consistent fluorescence response across the portion of the spectrum analyzed by ROST and therefore, allows the fluorescence data collected to be consistently normalized to intensities recorded as a percentage of M1.

LIMITATIONS OF ENVIRONMENTAL SUBSURFACE WORK

Fugro Geosciences' report is based upon our observations made during field work, the information provided to Fugro and the results of the ROST/CPT survey. Given the inherent limitation of environmental subsurface work, Fugro can not guarantee that the site is free of hazardous or potentially hazardous materials or conditions or that latent or undiscovered conditions will not become evident in the future. Fugro's report was prepared in accordance with our proposal and the General Conditions agreed to between Fugro and Client and no warranties, representations, or certifications are made.

* * *

Fugro Geosciences, Inc. appreciates the opportunity to be of service to your organization. Please do not hesitate to contact us if we can be of further assistance. We look forward to working with you in the future.

Sincerely,
FUGRO GEOSCIENCES, INC.

Andrew Taer
Operations Manager

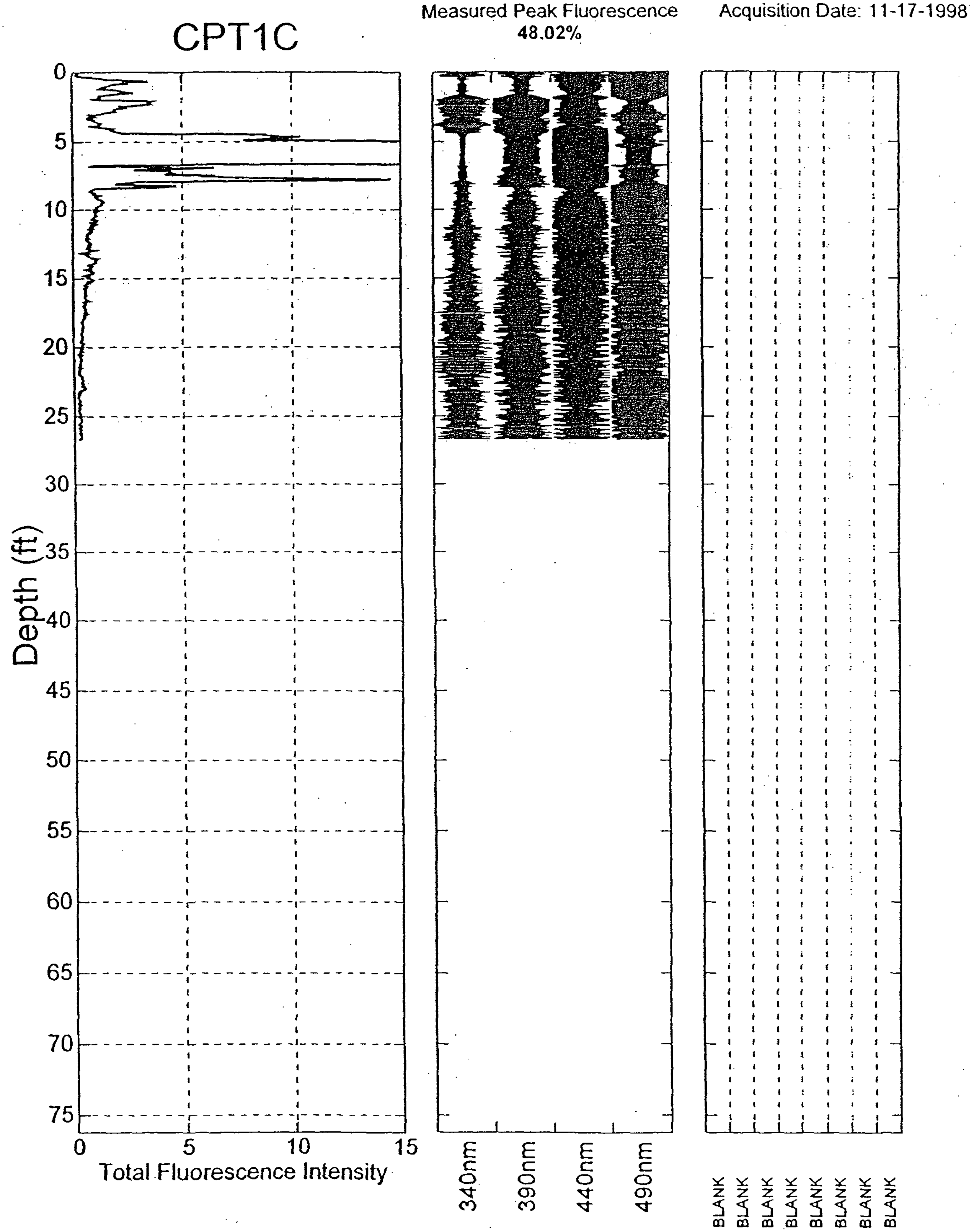
AT/mw

ROST™
LOGS

Measured LIF End Depth
26.67 ft
Measured Peak Fluorescence
48.02%

Job#: 98-1066

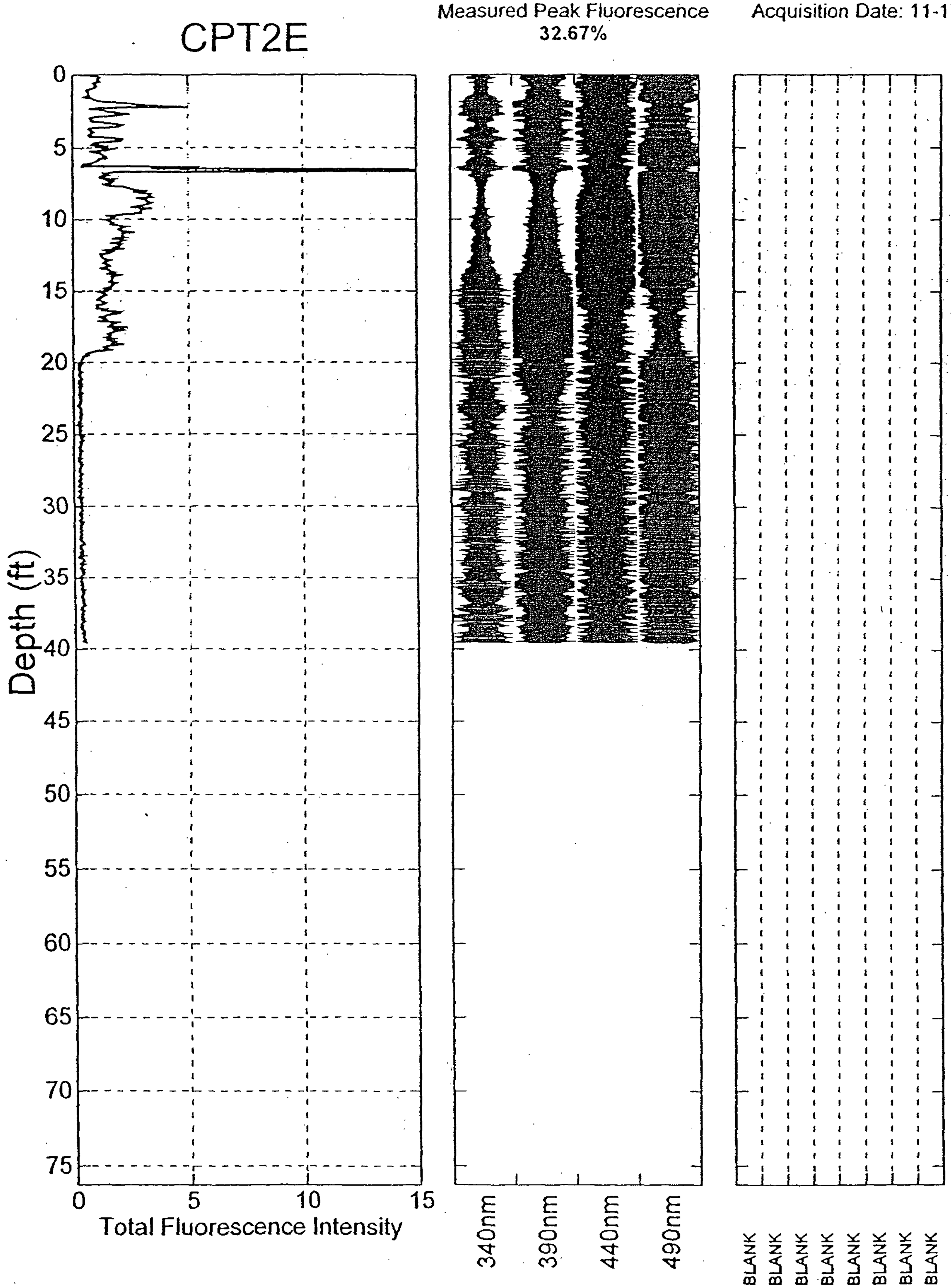
Acquisition Date: 11-17-1998



Measured LIF End Depth
39.57 ft
Measured Peak Fluorescence
32.67%

Job#: 98-1066

Acquisition Date: 11-17-1998

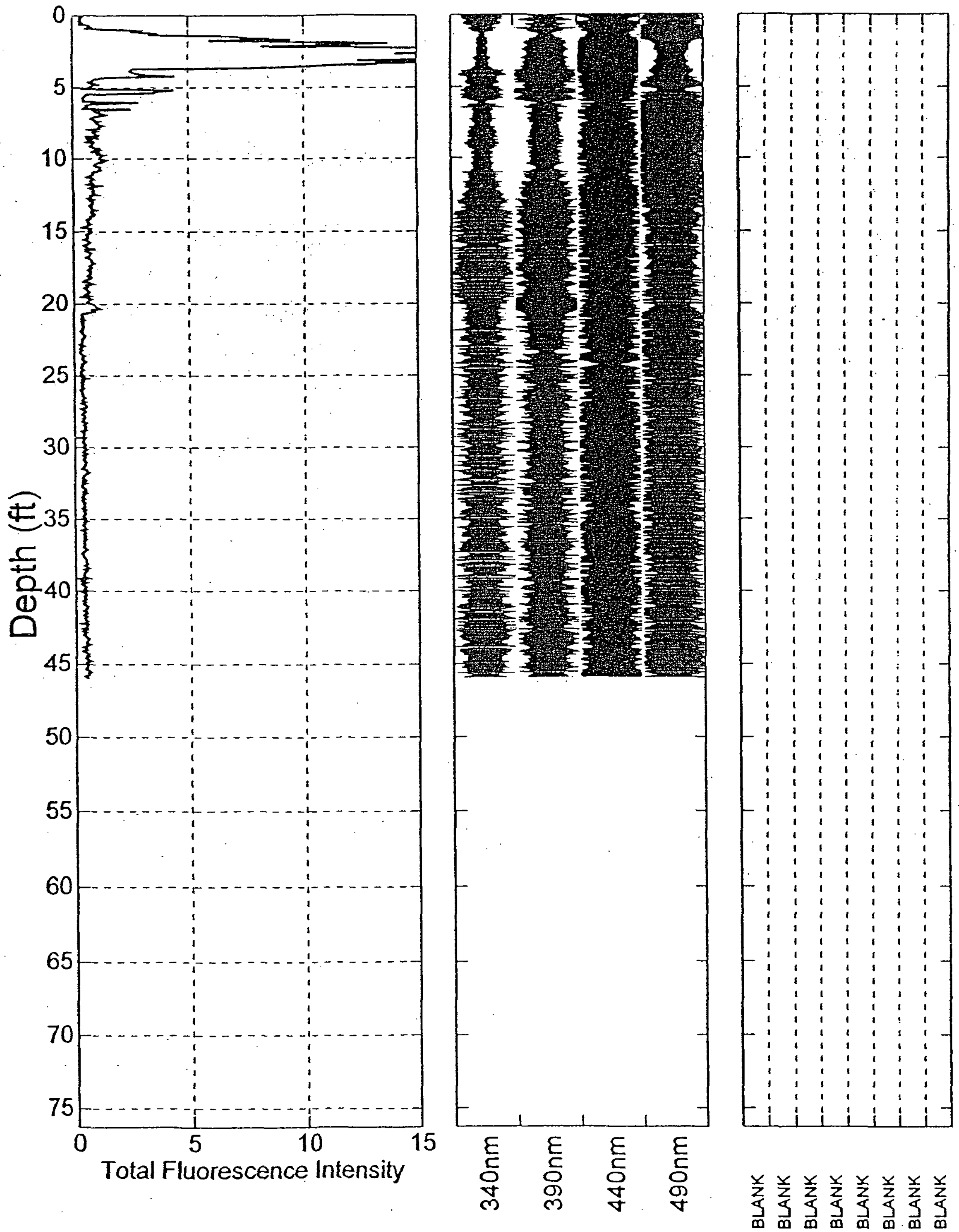


Measured LIF End Depth
45.93 ft
Measured Peak Fluorescence
28.98%

Job#: 98-1066

Acquisition Date: 11-13-1998

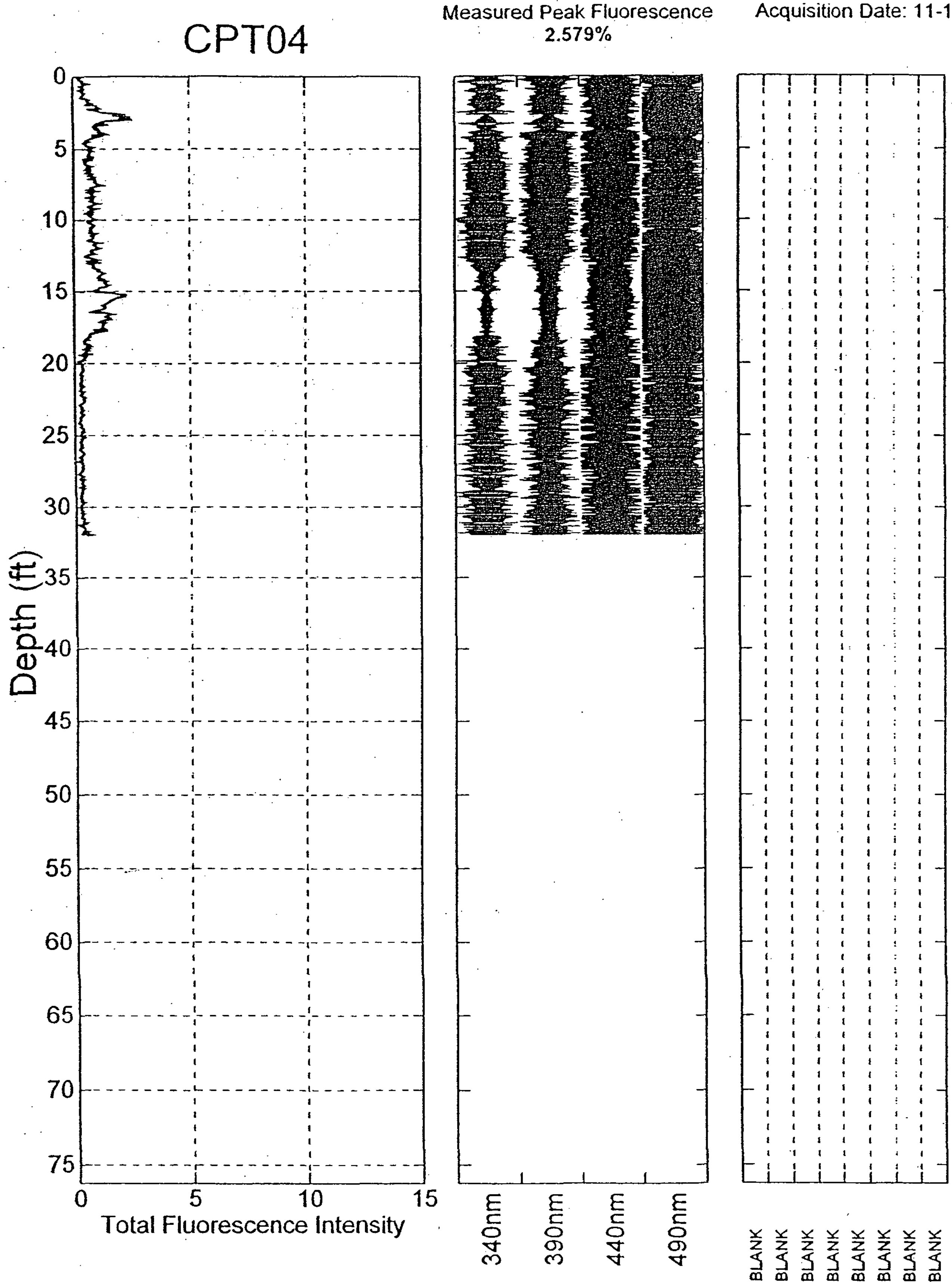
CPT03



Measured LIF End Depth
31.99 ft
Measured Peak Fluorescence
2.579%

Job#: 98-1066

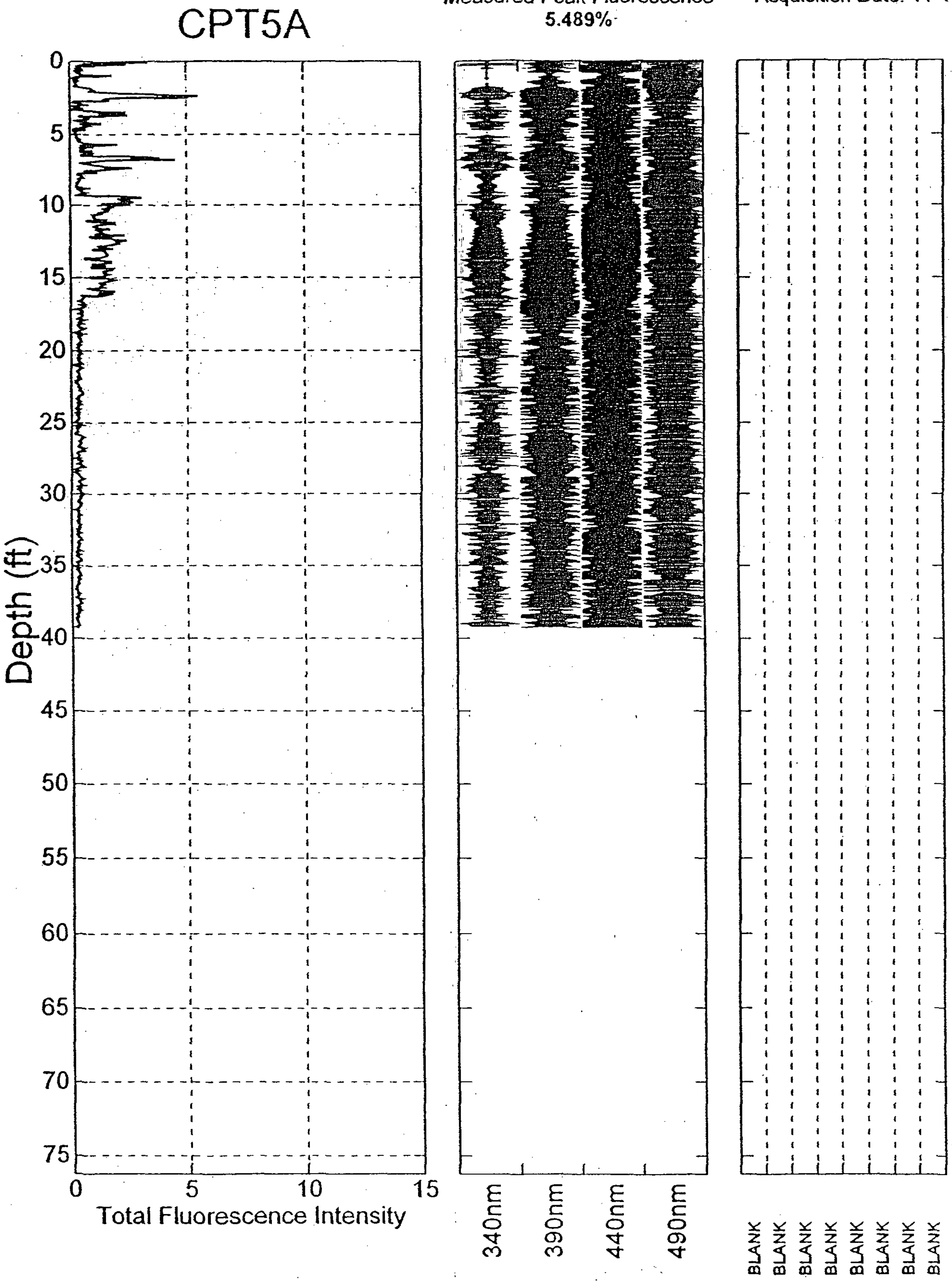
Acquisition Date: 11-13-1998



Measured LIF End Depth
39.24 ft
Measured Peak Fluorescence
5.489%

Job#: 98-1066

Acquisition Date: 11-16-1998

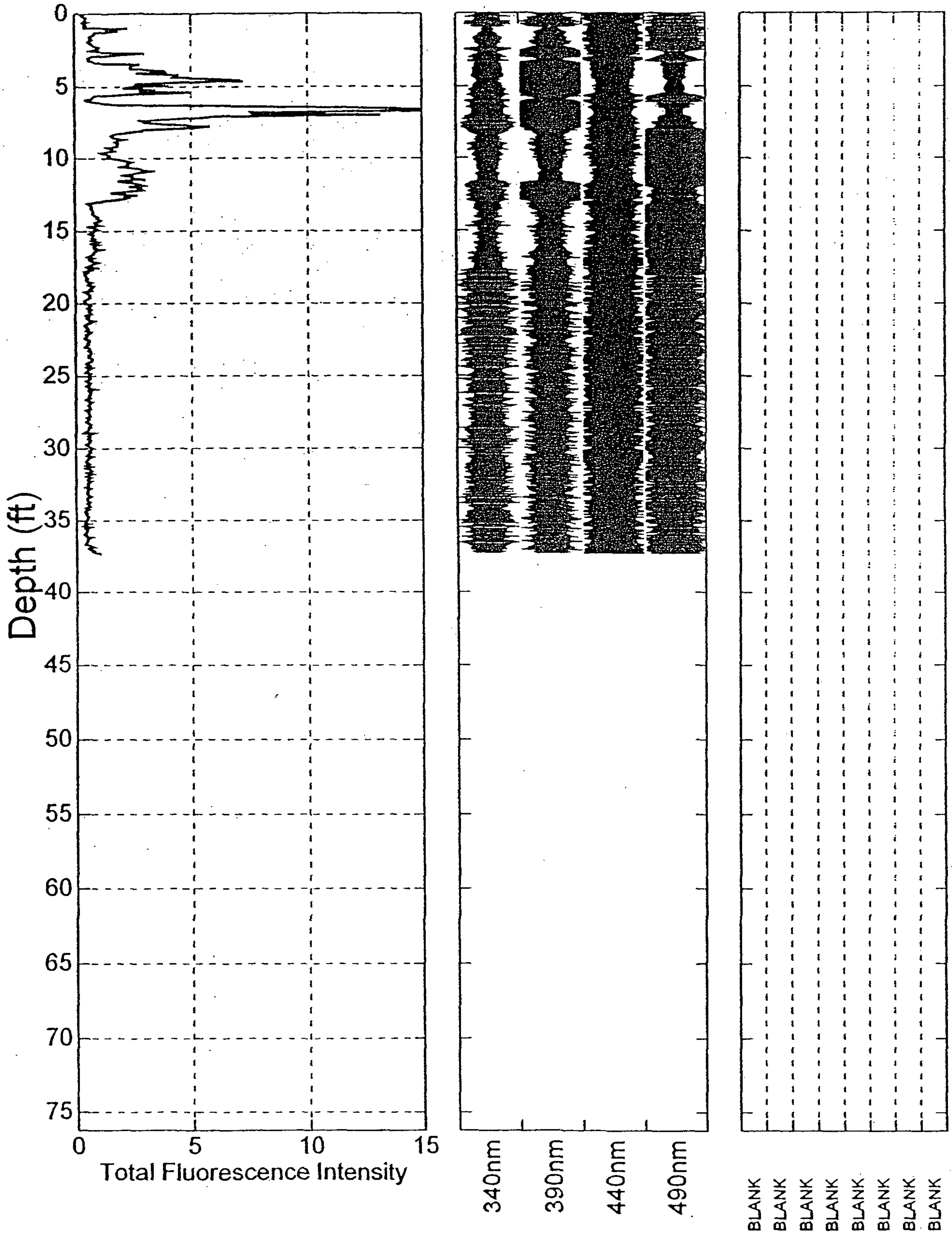


Measured LIF End Depth
37.3 ft
Measured Peak Fluorescence
16.47%

Job#: 98-1066

Acquisition Date: 11-13-1998

CPT06

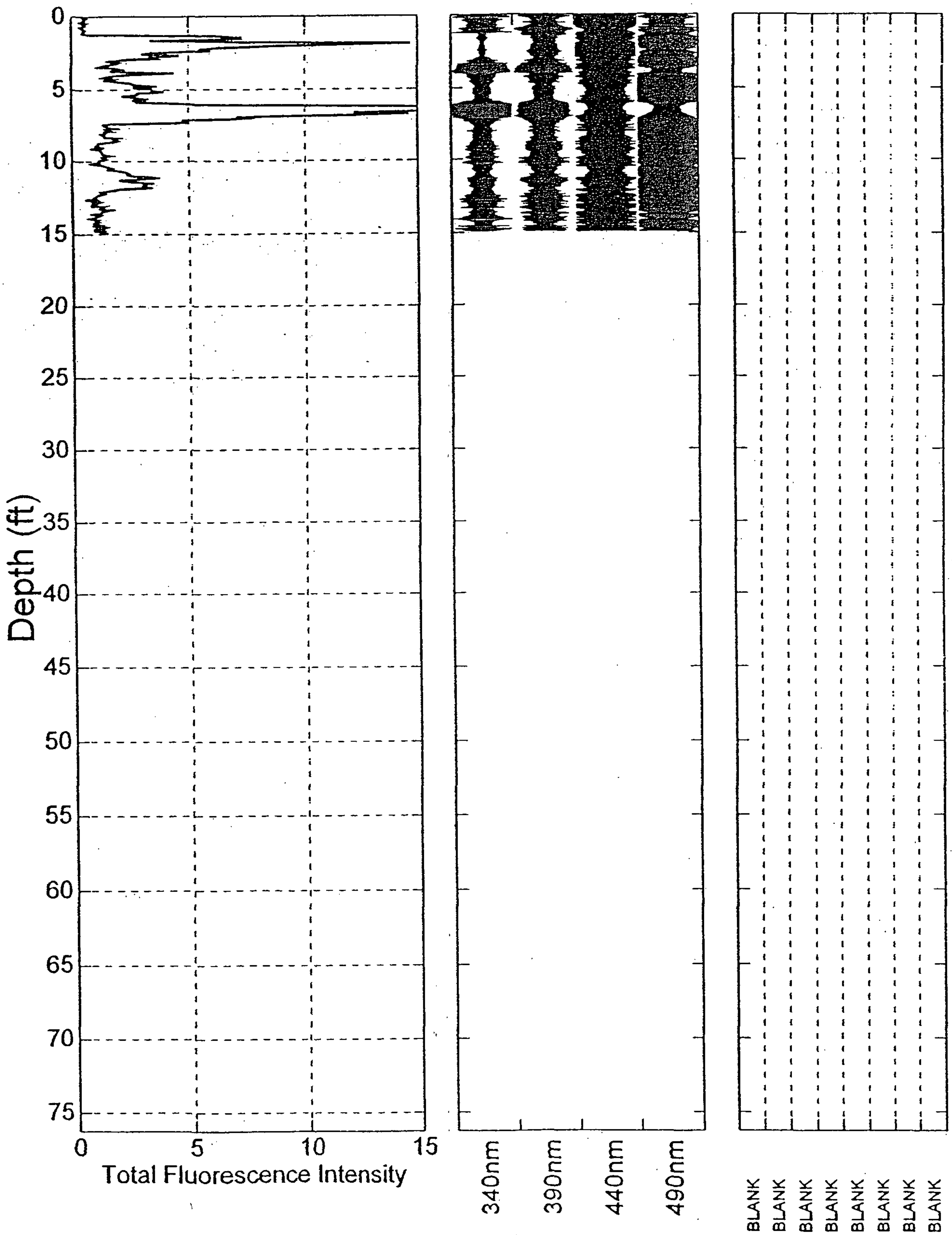


Measured LIF End Depth
14.93 ft
Measured Peak Fluorescence
21.21%

Job#: 98-1066

Acquisition Date: 11-13-1998

CPT07

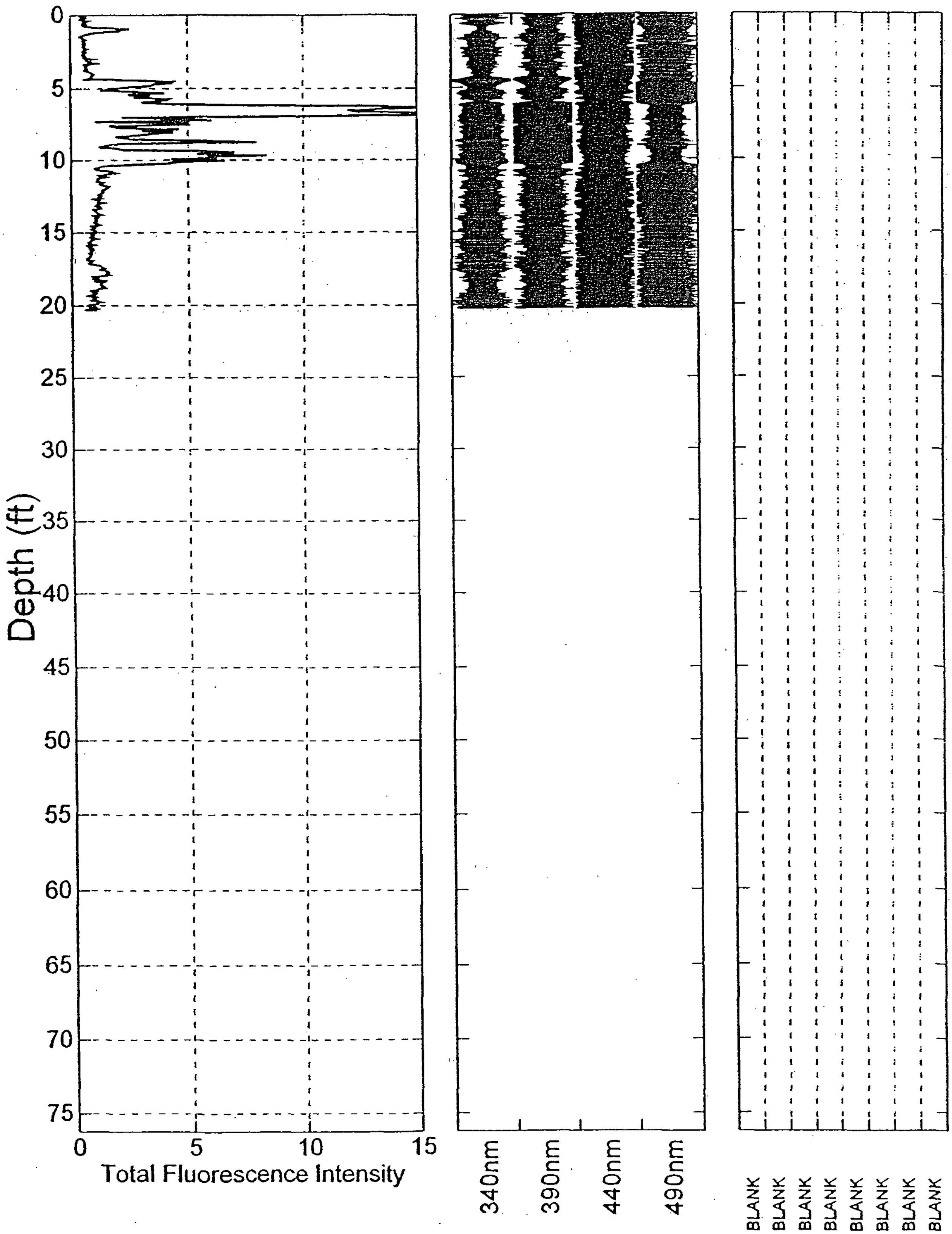


Measured LIF End Depth
20.31 ft
Measured Peak Fluorescence
20.33%

Job#: 98-1066

Acquisition Date: 11-13-1998

CPT08

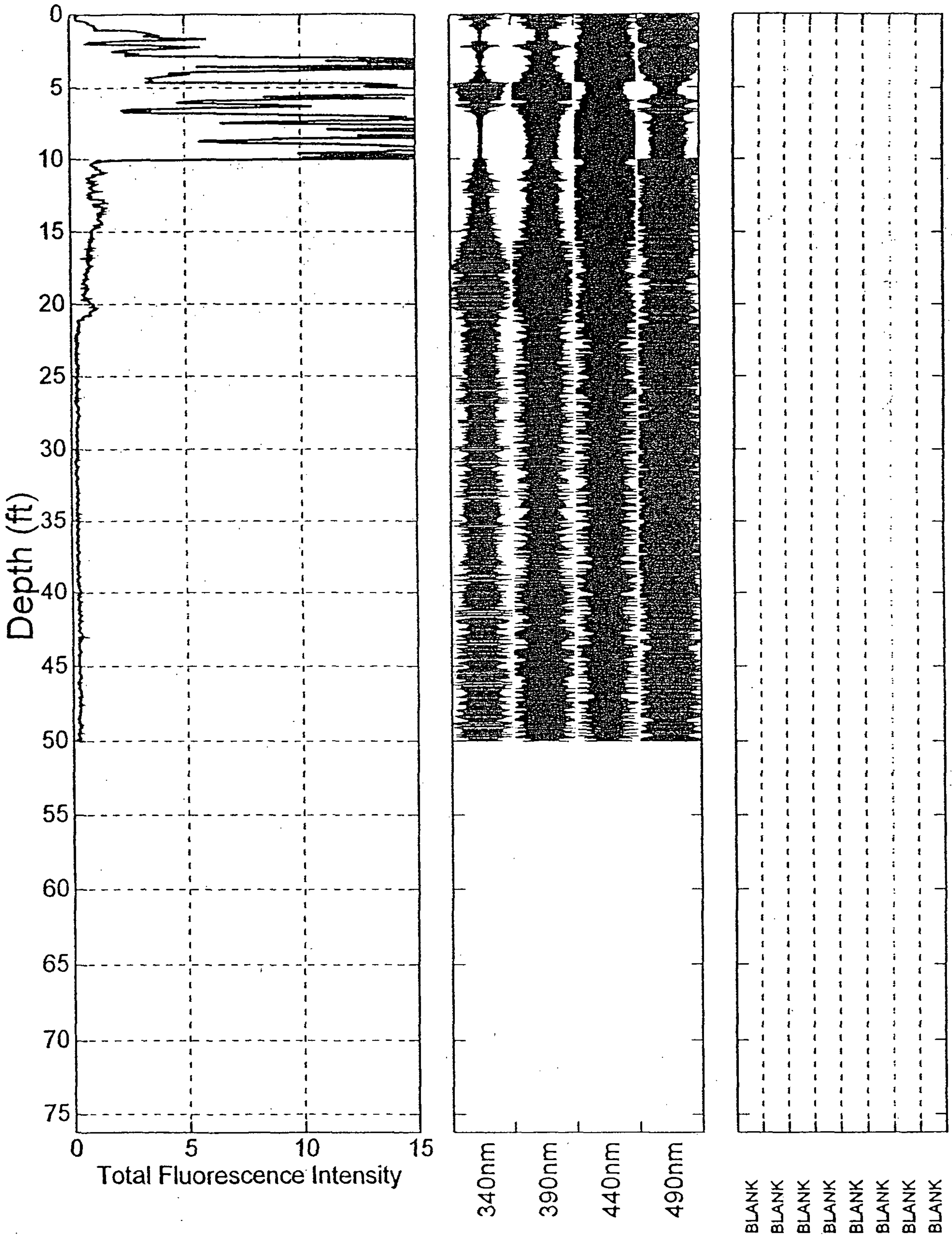


Measured LIF End Depth
50.03 ft
Measured Peak Fluorescence
27.14%

Job#: 98-1066

Acquisition Date: 11-17-1998

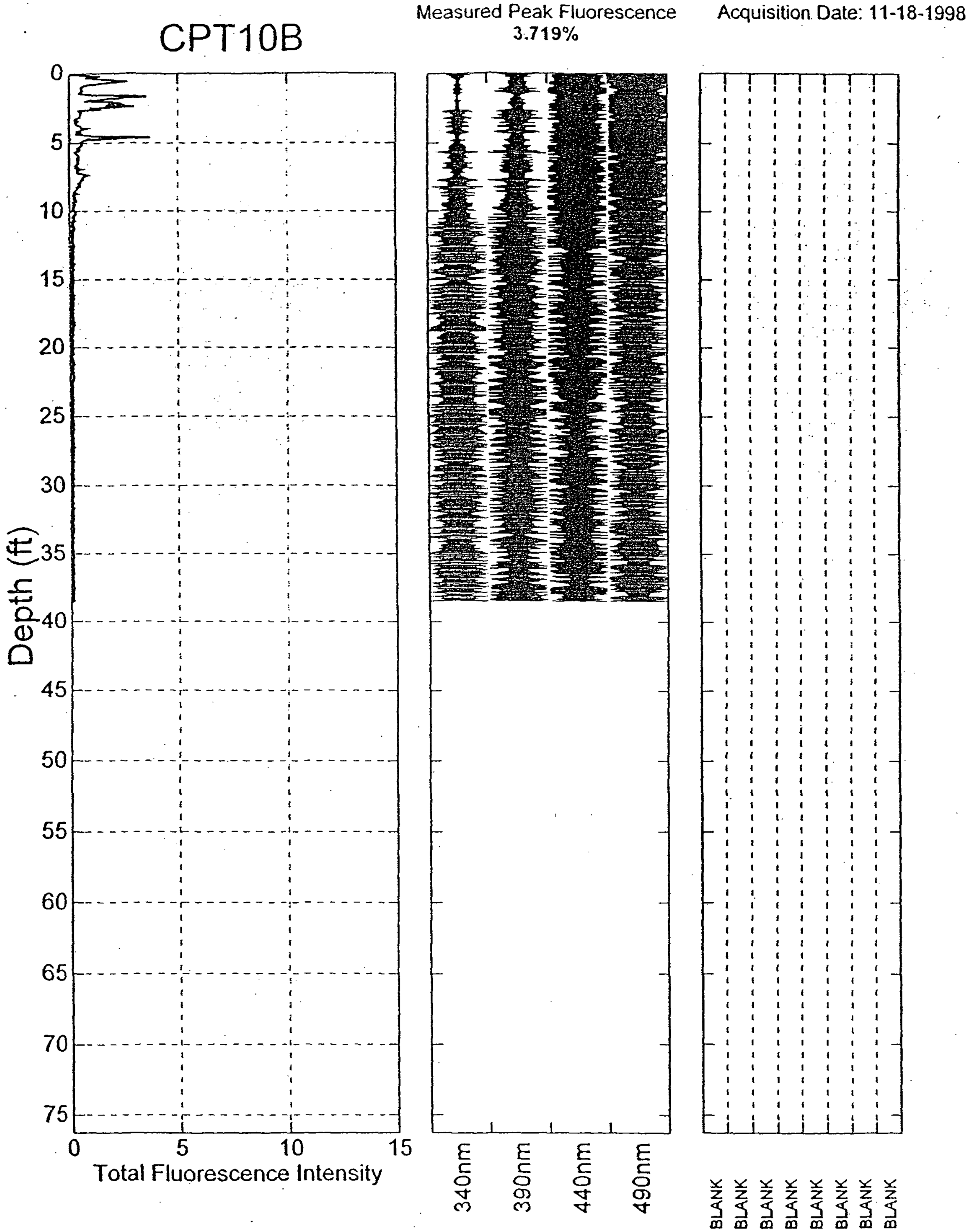
CPT09



Measured LIF End Depth
38.52 ft
Measured Peak Fluorescence
3.719%

Job#: 98-1066

Acquisition Date: 11-18-1998

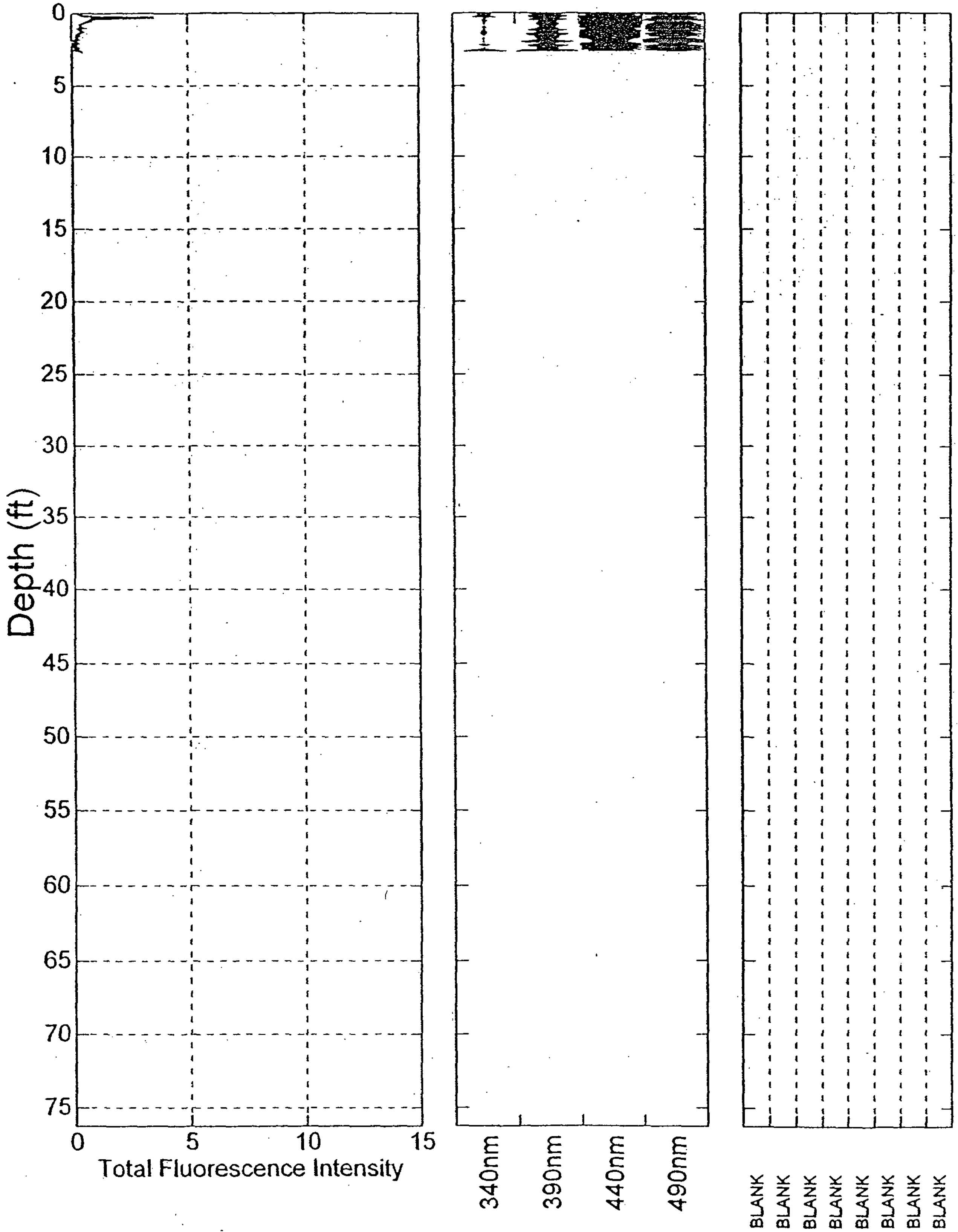


Measured LIF End Depth
2.657 ft
Measured Peak Fluorescence
3.547%

Job#: 98-1066

Acquisition Date: 11-16-1998

CPT11

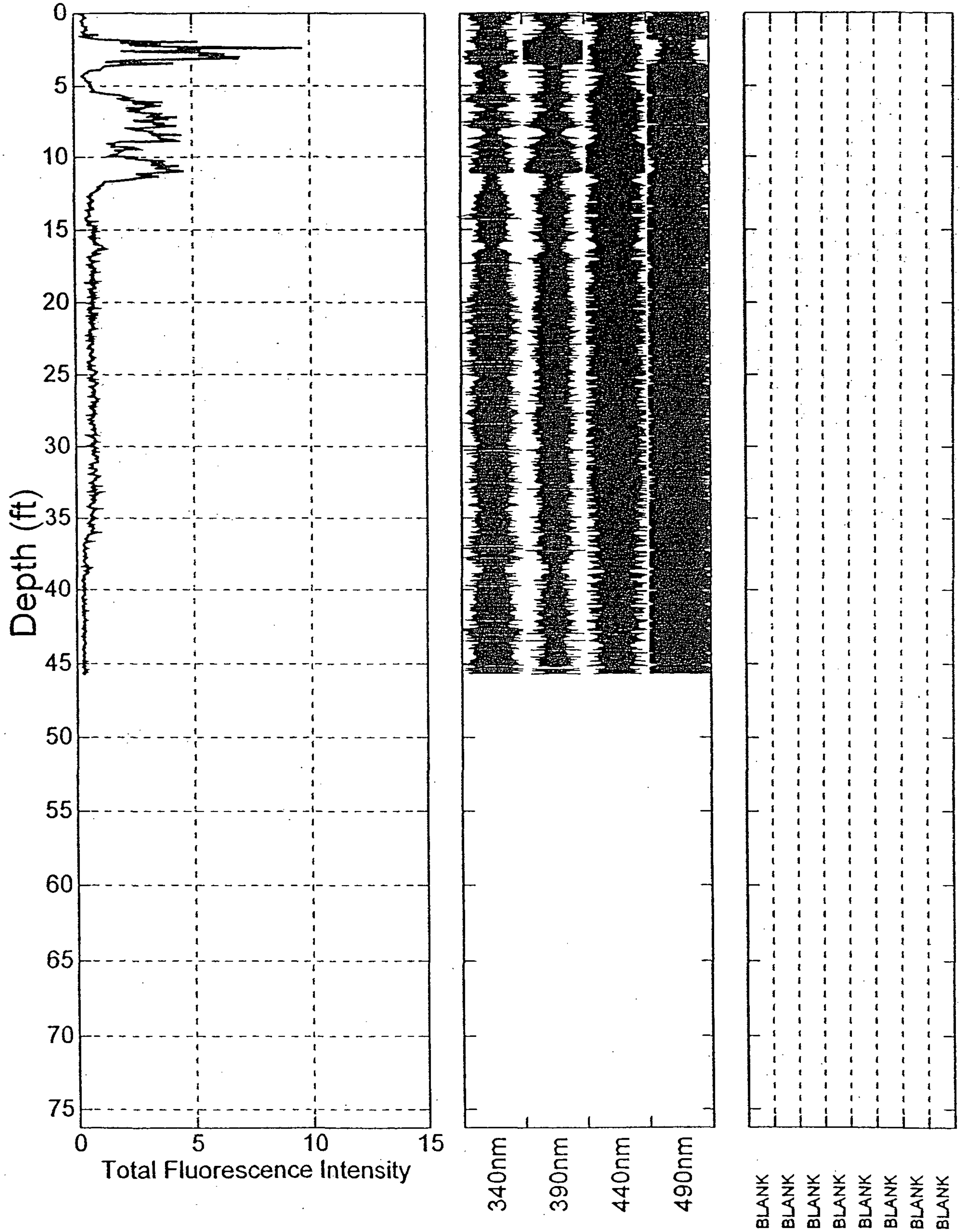


Measured LIF End Depth
45.7 ft
Measured Peak Fluorescence
9.689%

Job#: 98-1066

Acquisition Date: 11-16-1998

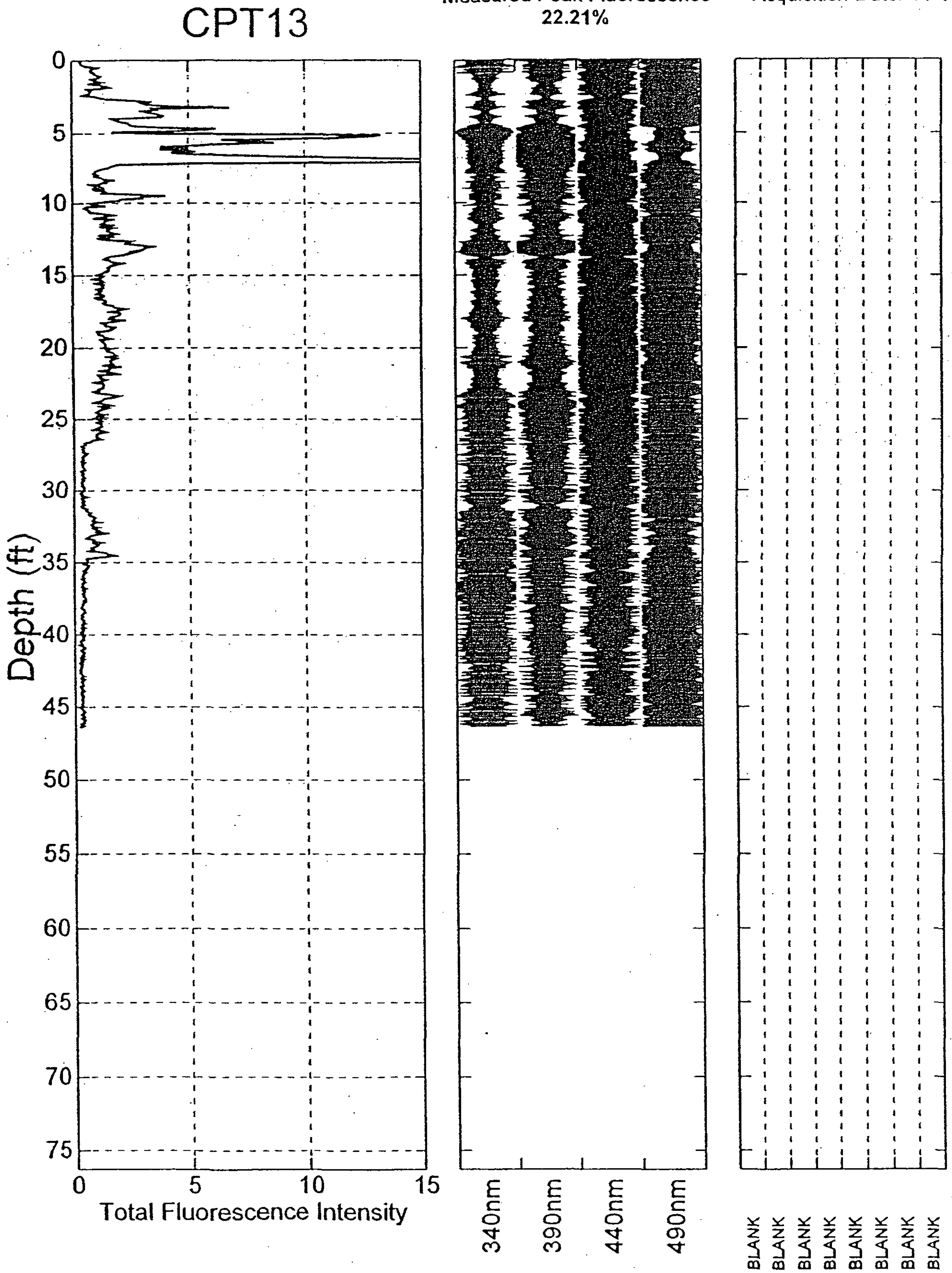
CPT12



Measured LIF End Depth
46.39 ft
Measured Peak Fluorescence
22.21%

Job#: 98-1066

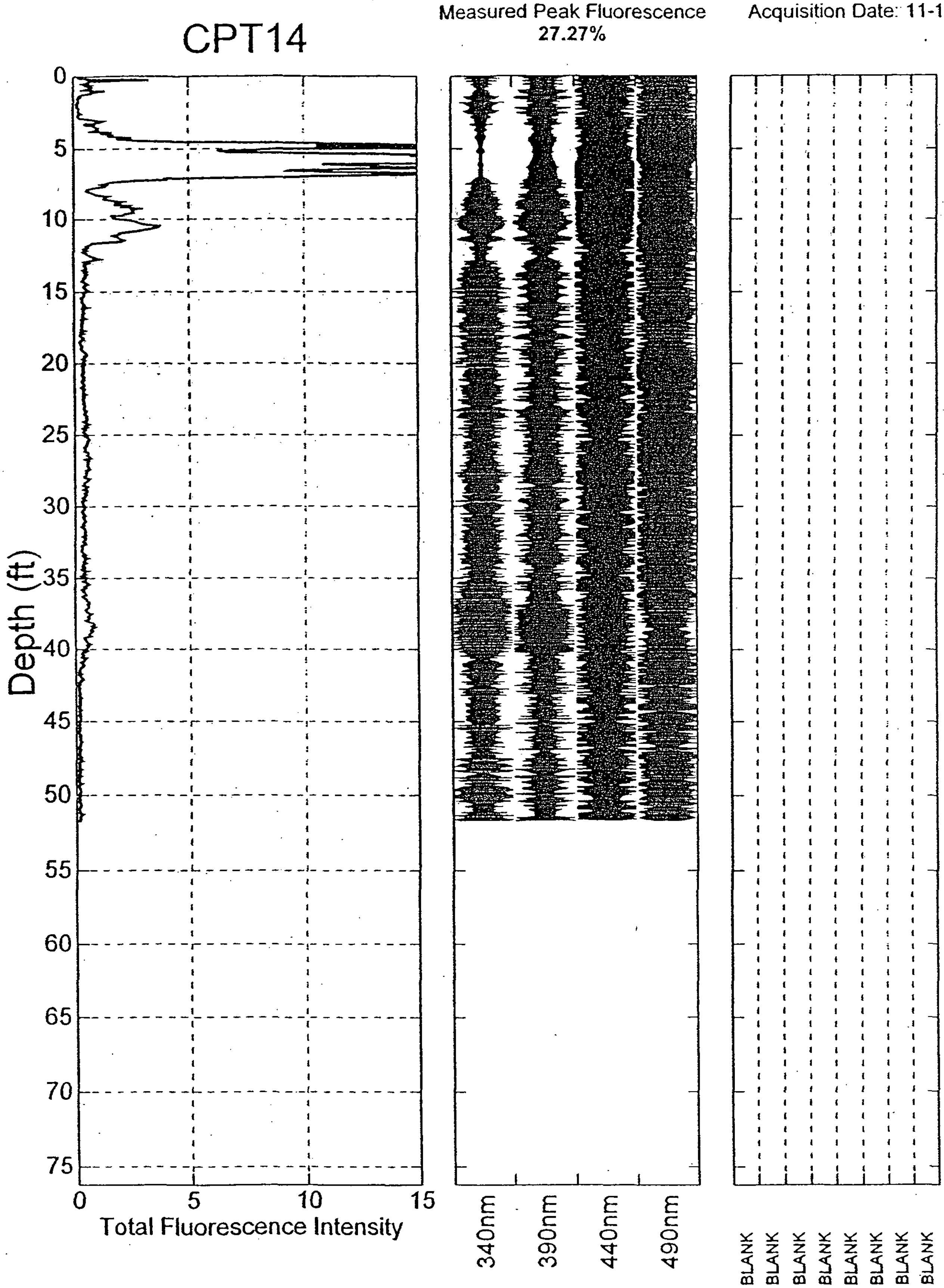
Acquisition Date: 11-16-1998



Measured LIF End Depth
51.71 ft
Measured Peak Fluorescence
27.27%

Job#: 98-1066

Acquisition Date: 11-17-1998

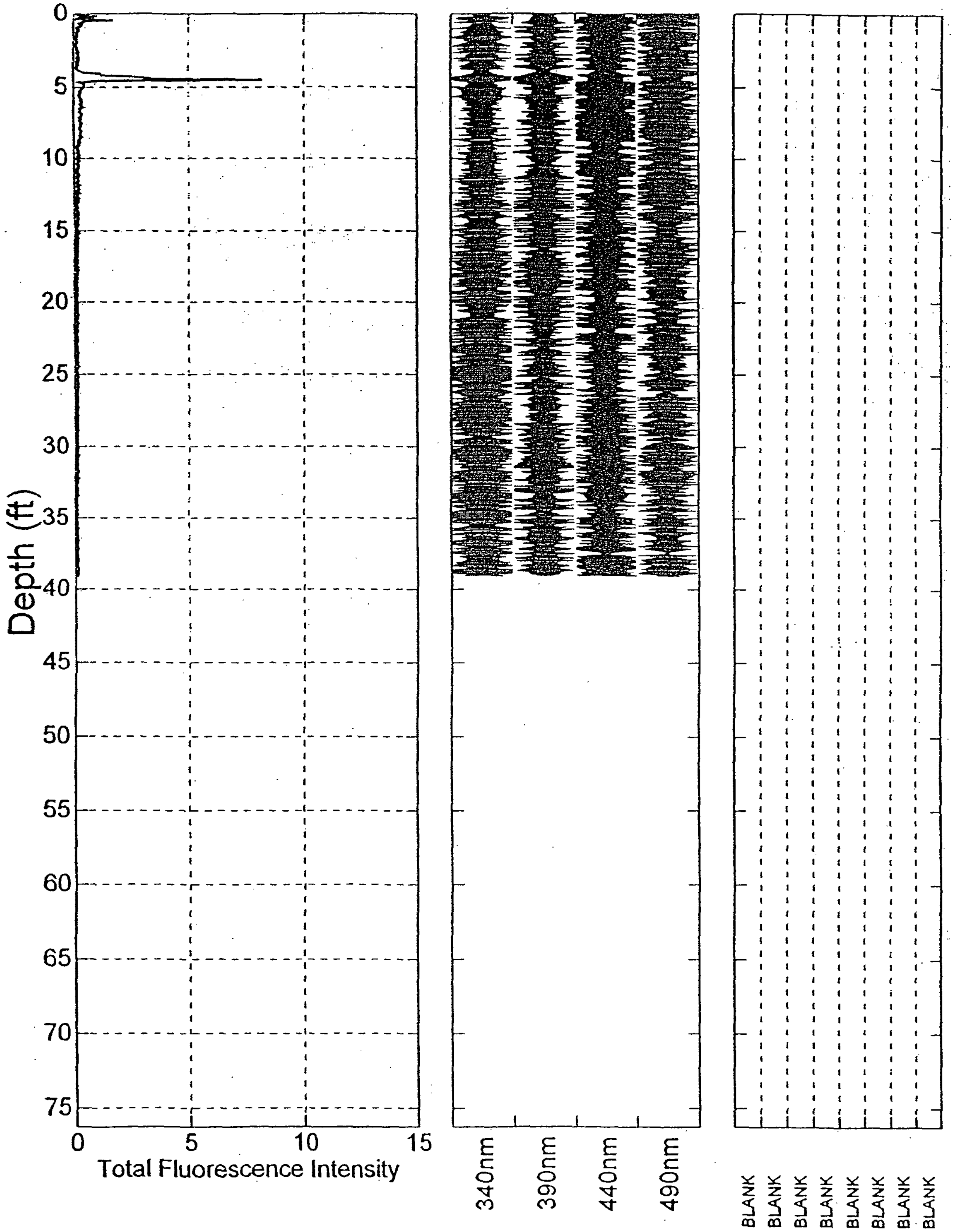


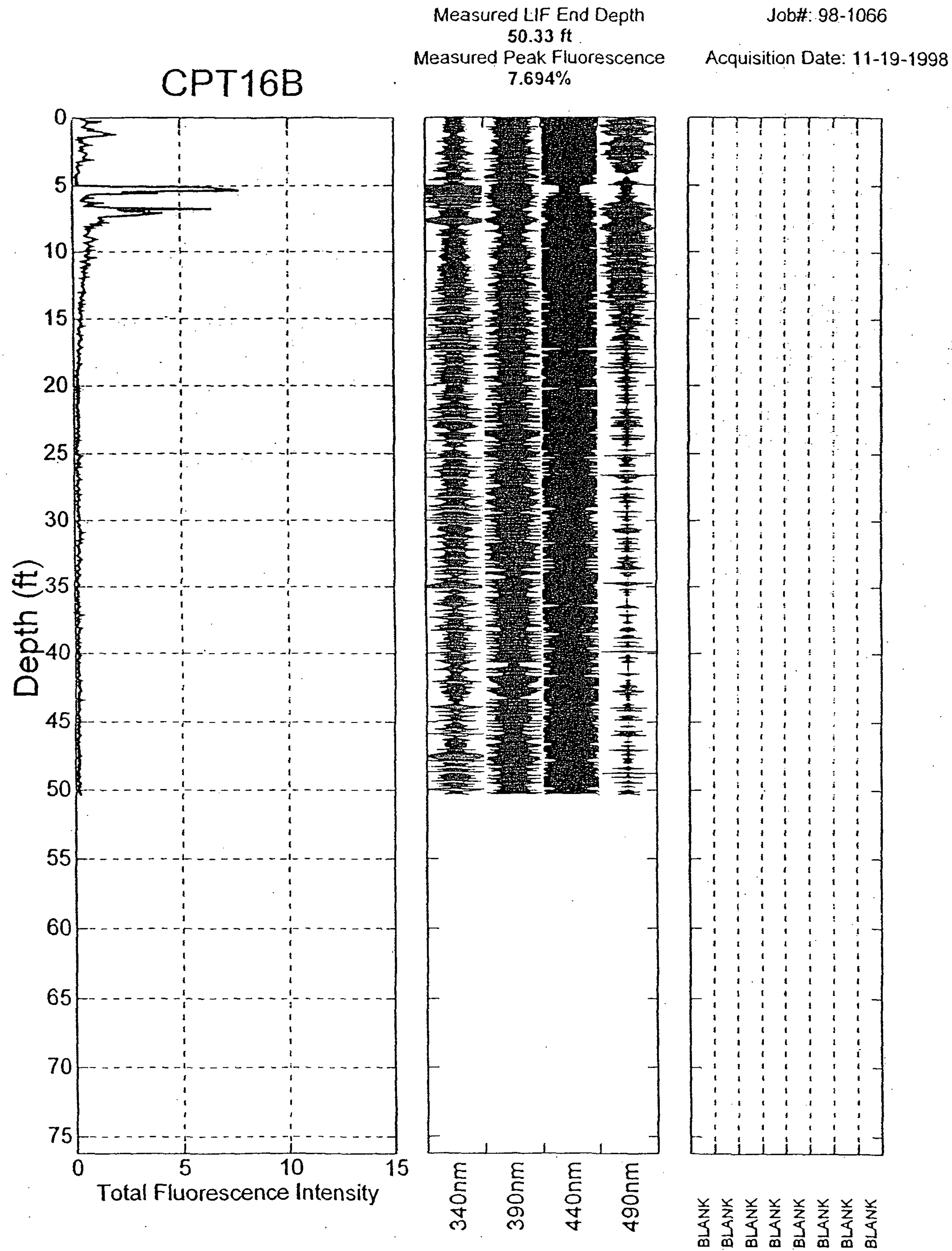
Measured LIF End Depth
39.08 ft
Measured Peak Fluorescence
8.133%

Job#: 98-1066

Acquisition Date: 11-18-1998

CPT15





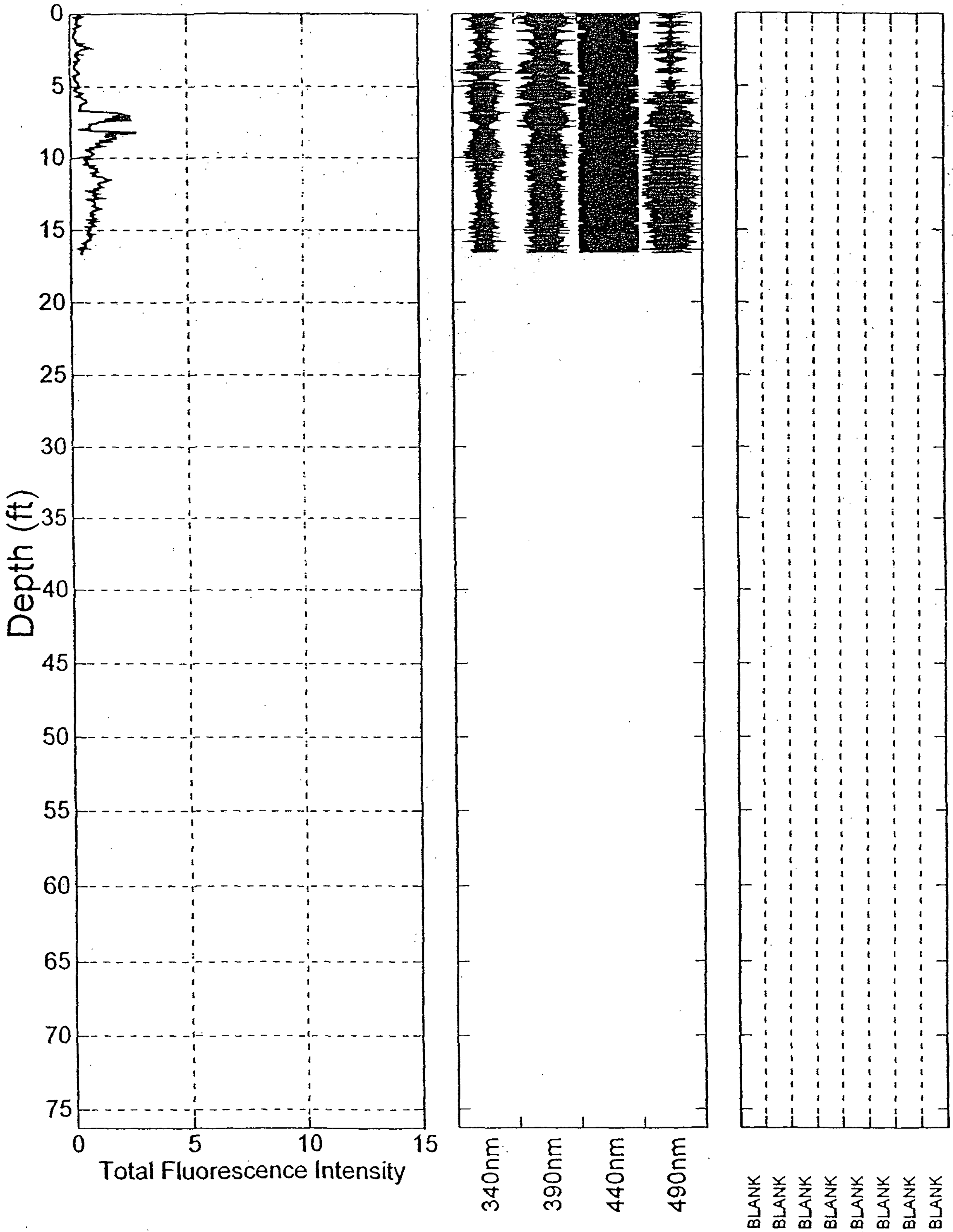
CPT16B
Measured LIF End Depth
50.33 ft
Measured Peak Fluorescence
7.694%
Job#: 98-1066
Acquisition Date: 11-19-1998
Depth (ft)
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
0
5
10
15
Total Fluorescence Intensity
340nm
390nm
440nm
490nm
BLANK
BLANK
BLANK
BLANK
BLANK
BLANK
BLANK
BLANK

Measured LIF End Depth
16.6 ft
Measured Peak Fluorescence
2.788%

Job#: 98-1066

Acquisition Date: 11-19-1998

CPT17

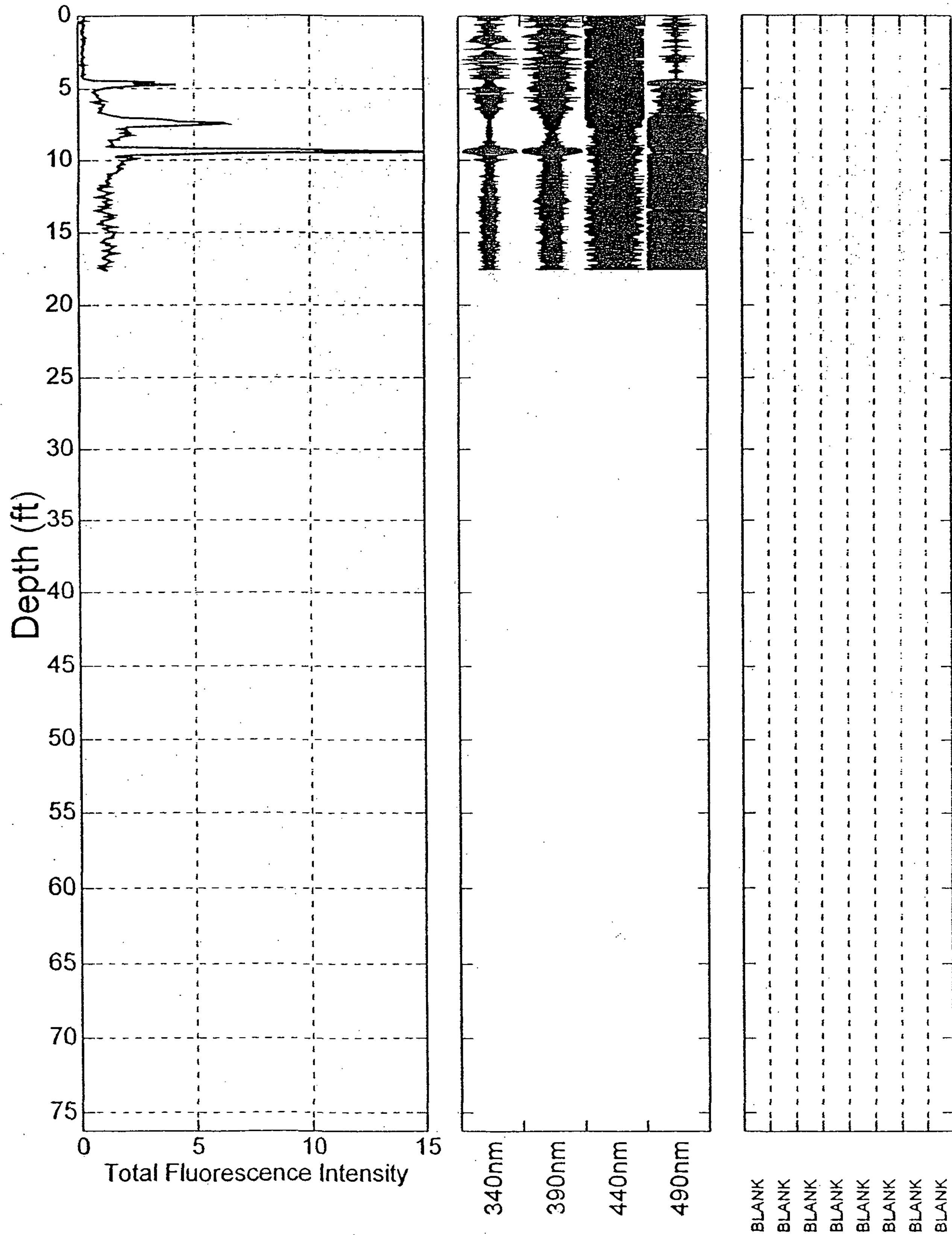


Measured LIF End Depth
17.58 ft
Measured Peak Fluorescence
17.14%

Job#: 98-1066

Acquisition Date: 11-19-1998

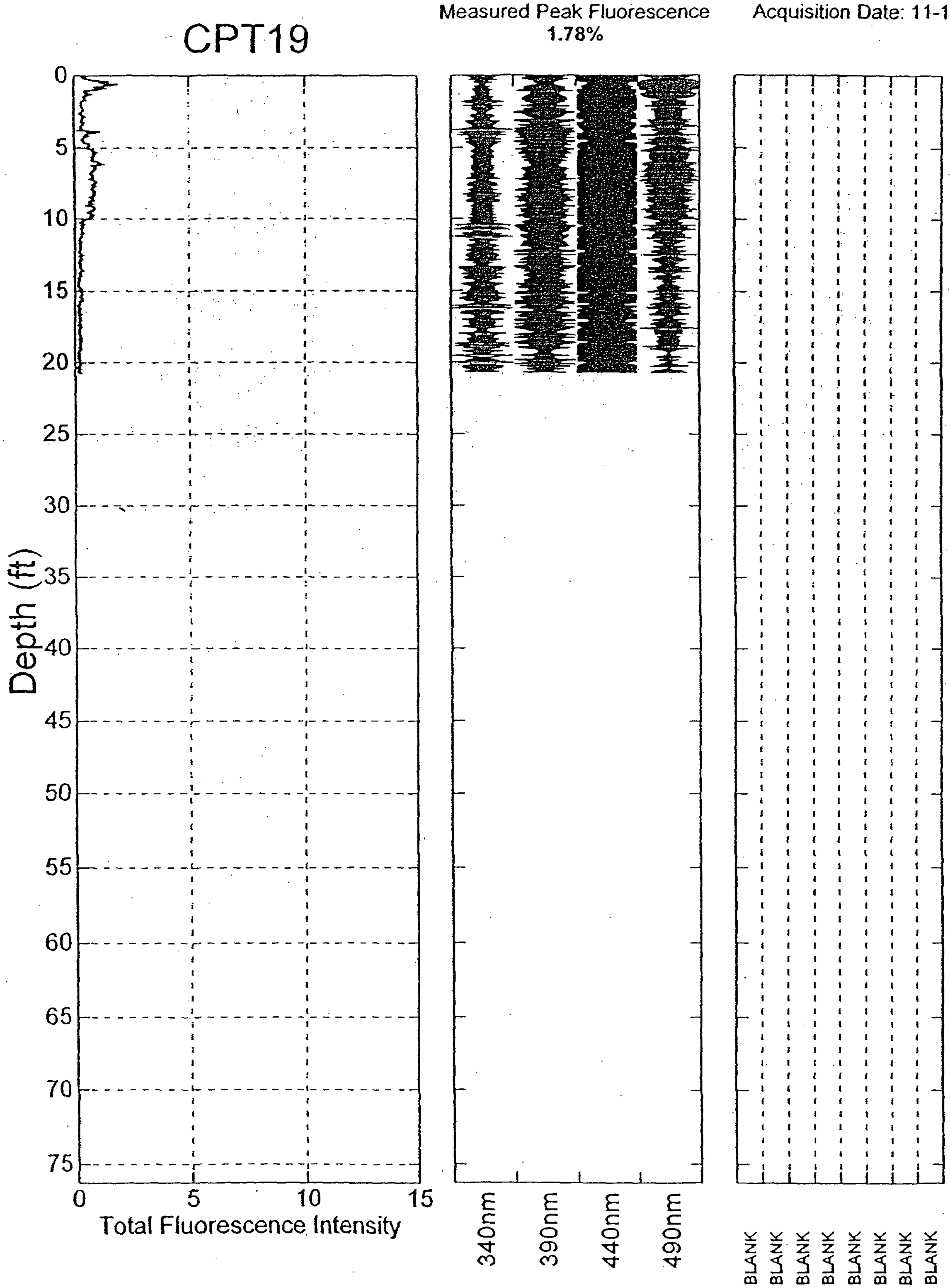
CPT18



Measured LIF End Depth
20.7 ft
Measured Peak Fluorescence
1.78%

Job#: 98-1066

Acquisition Date: 11-19-1998

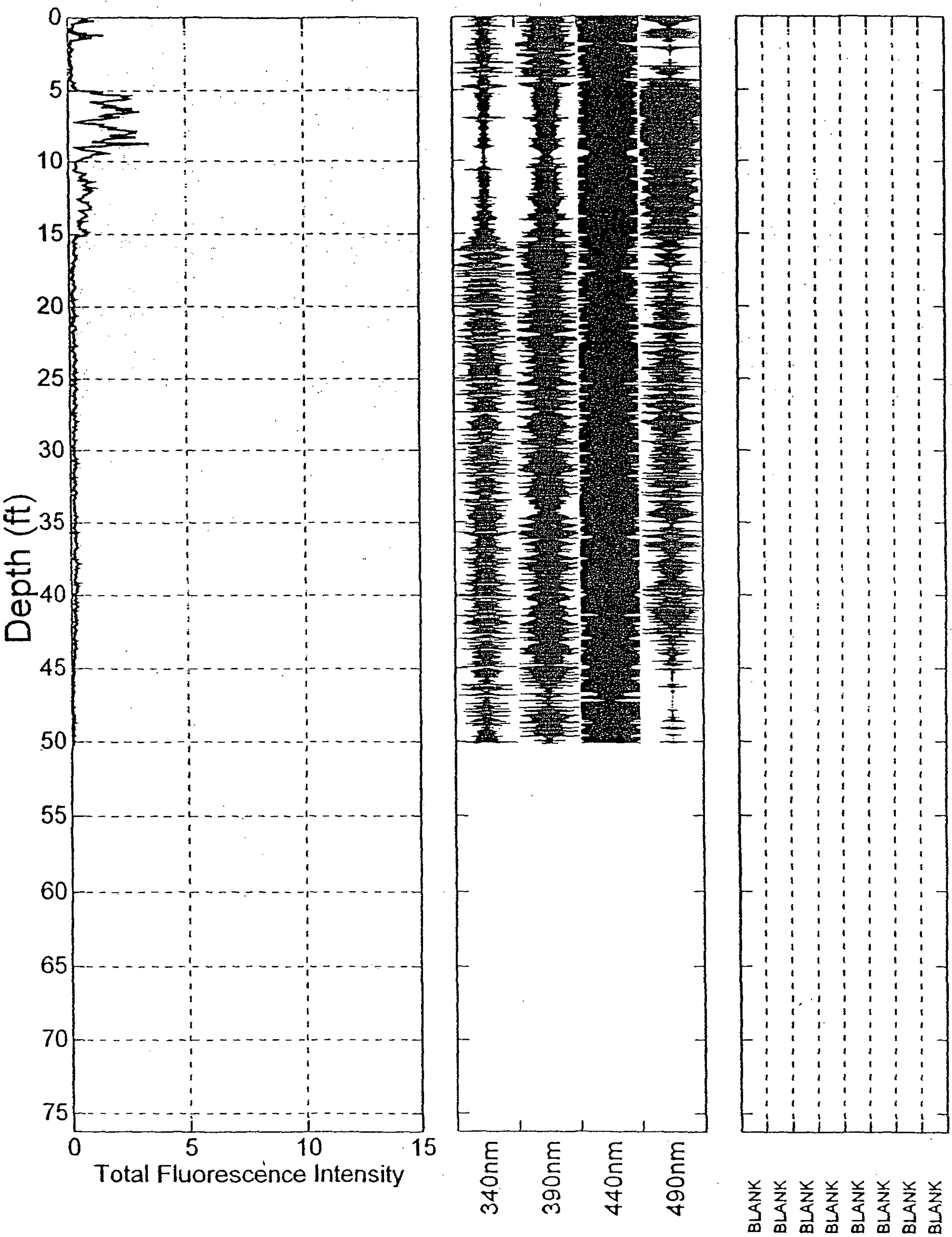


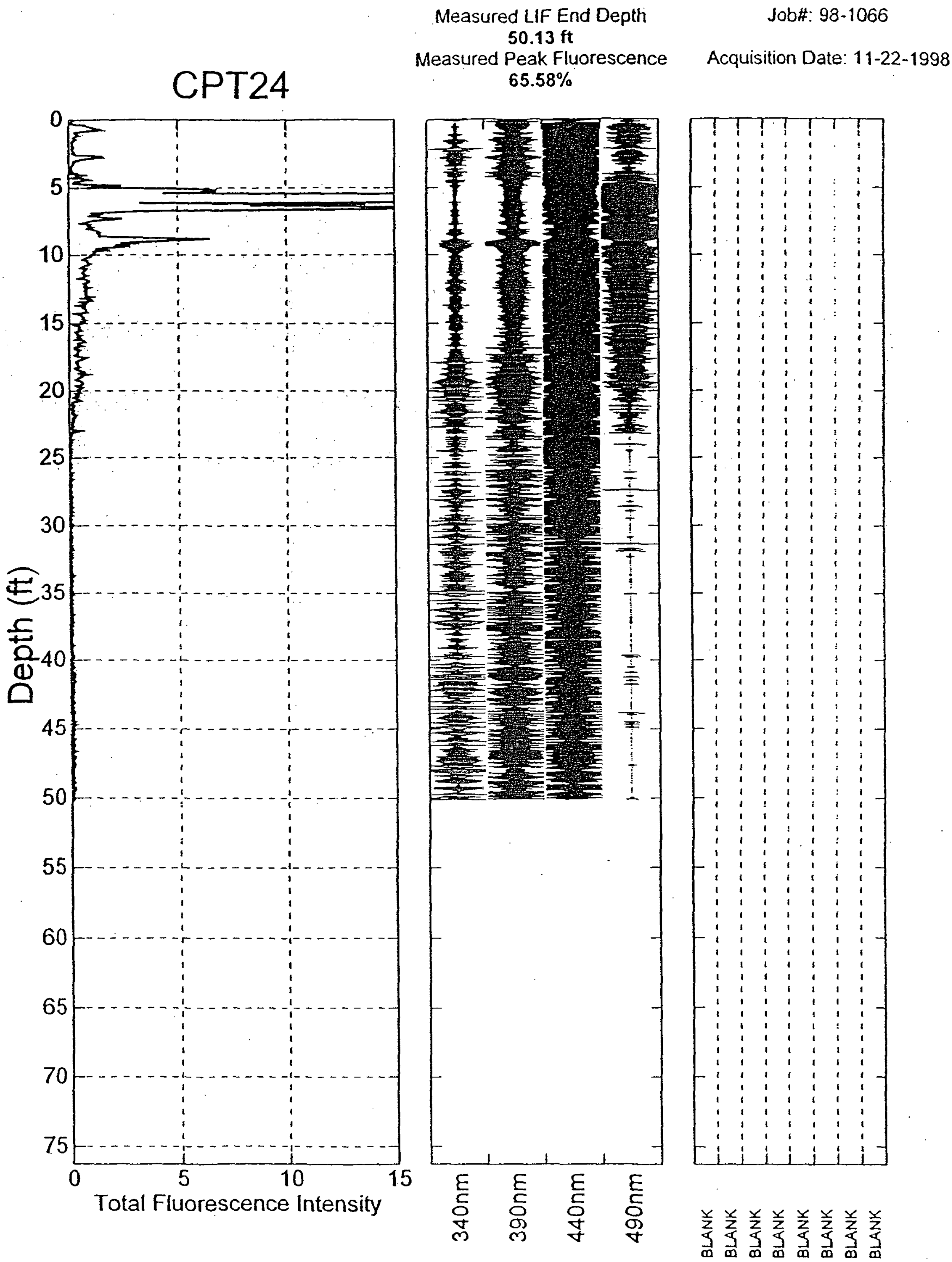
Measured LIF End Depth
50.16 ft
Measured Peak Fluorescence
3.466%

Job#: 98-1066

Acquisition Date: 11-22-1998

CPT21





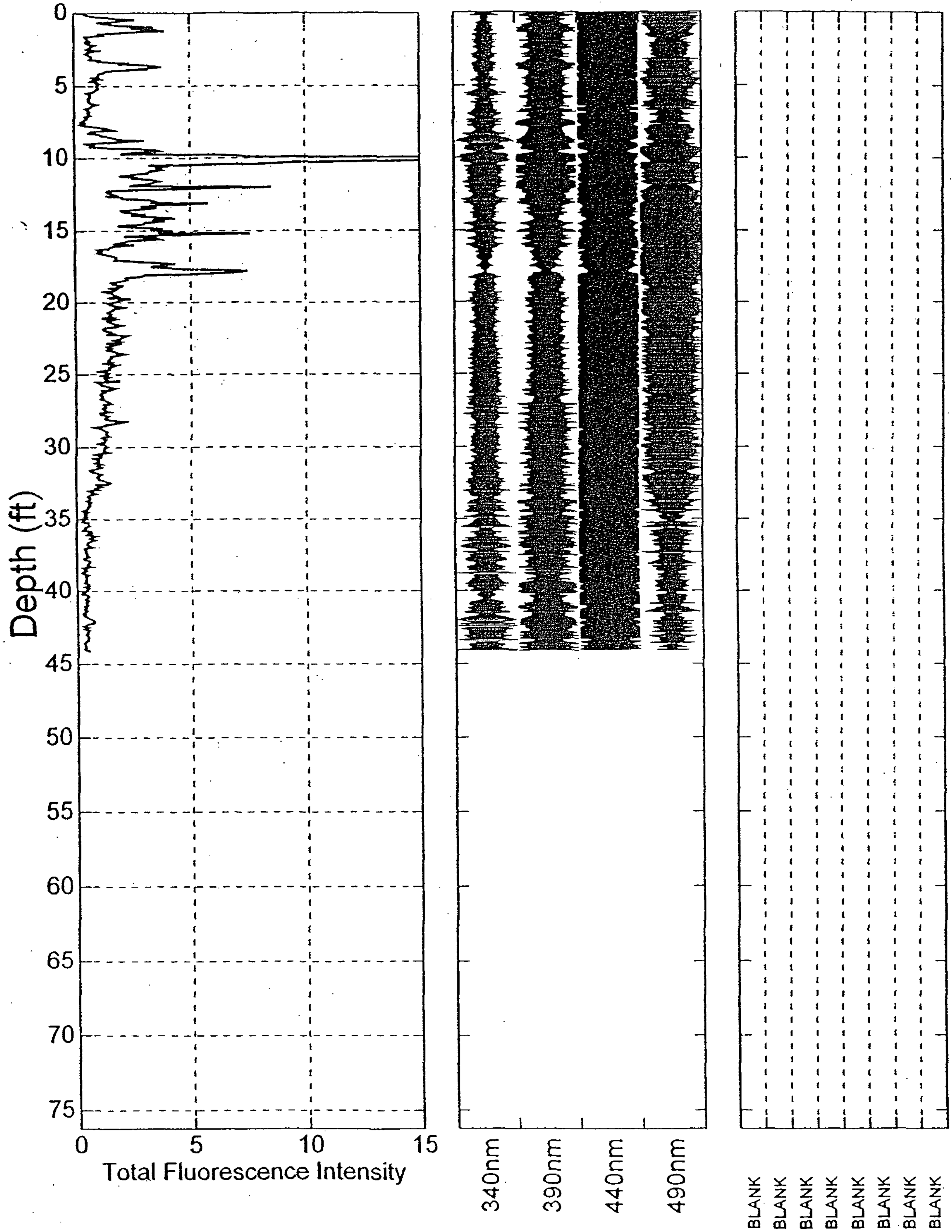
Measured LIF End Depth
50.13 ft
Measured Peak Fluorescence
65.58%
Job#: 98-1066
Acquisition Date: 11-22-1998
CPT24
Depth (ft)
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
0
5
10
15
Total Fluorescence Intensity
340nm
390nm
440nm
490nm
BLANK
BLANK
BLANK
BLANK
BLANK
BLANK
BLANK
BLANK

Measured LIF End Depth
44.13 ft
Measured Peak Fluorescence
19.04%

Job#: 98-1066

Acquisition Date: 11-22-1998

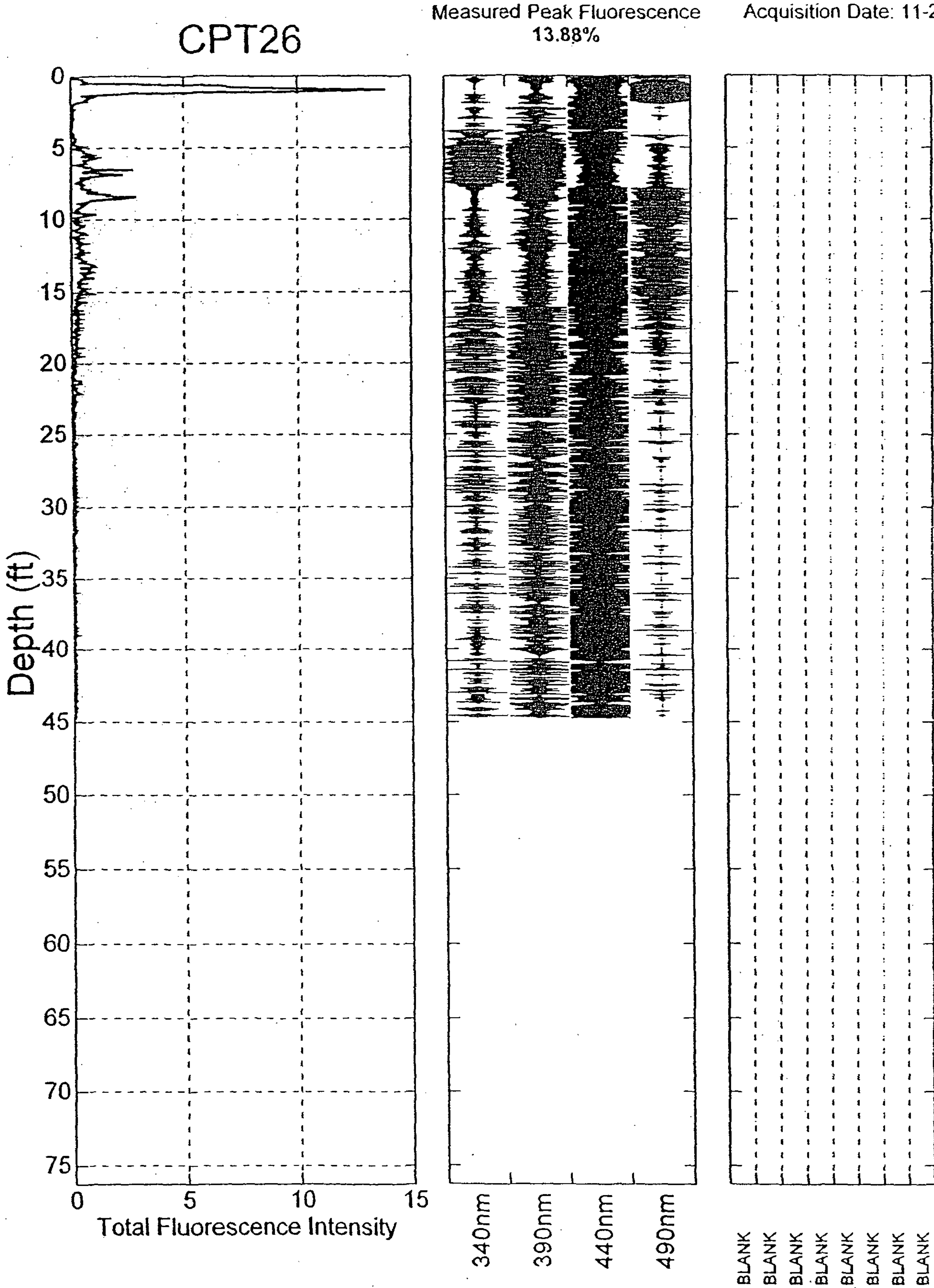
CPT25



Measured LIF End Depth
44.75 ft
Measured Peak Fluorescence
13.88%

Job#: 98-1066

Acquisition Date: 11-22-1998

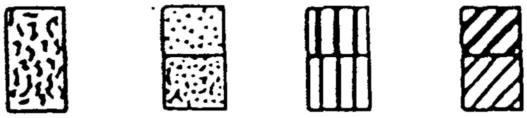


CPT LOGS

Key To Soil Classification and Symbols

SOIL TYPE
(Shown in Symbol Column)

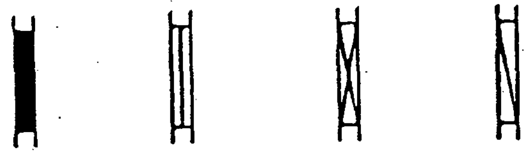
Sand Silt Clay



Fill Sandy Silty Clayey

Predominant Type Shown Heavy

SAMPLE TYPE
(Shown in Samples Column)



Undisturbed Rock Core Split Spoon No Recovery

TERMS DESCRIBING CONSISTENCY OR CONDITION

COARSE GRAINED SOILS (Major portion Retained on No. 200 Sieve)
Includes (1) clean gravels and sand described as fine, medium or course, depending on distribution of grain sizes (2) silty or clayey gravels and sands and (3) fine grained low plasticity soils (PI < 10) such as sandy silts. Condition is rated according to relative density, as determined by lab tests or estimated from resistance to sampler penetration.

Descriptive Term	Penetration Resistance*	Relative Density
Loose	0 - 10	0 to 40%
Medium Dense	10 - 30	40 to 70%
Dense	30 - 50	70 to 90%
Very Dense	Over 50	90 to 100%

* Blows/Foot, 140# Hammer, 30" Drop

FINE GRAINED SOILS (Major Portion Passing No. 200 Sieve)
Includes (1) inorganic and organic silts and clays, (2) sandy, gravelly or silty clays, and (3) clayey silts. Consistency is rated according to shearing strength, as indicated by penetrometer readings or by unconfined compression tests for soils with PI $\geq$ 10.

Descriptive Term	Cohesive Shear Strength Tons/Square Foot
Very Soft	Less Than 0.125
Soft	0.125 to 0.25
Firm	0.25 to 0.50
Stiff	0.50 to 1.00
Very Stiff	1.00 to 2.00
Hard	2.00 and Higher

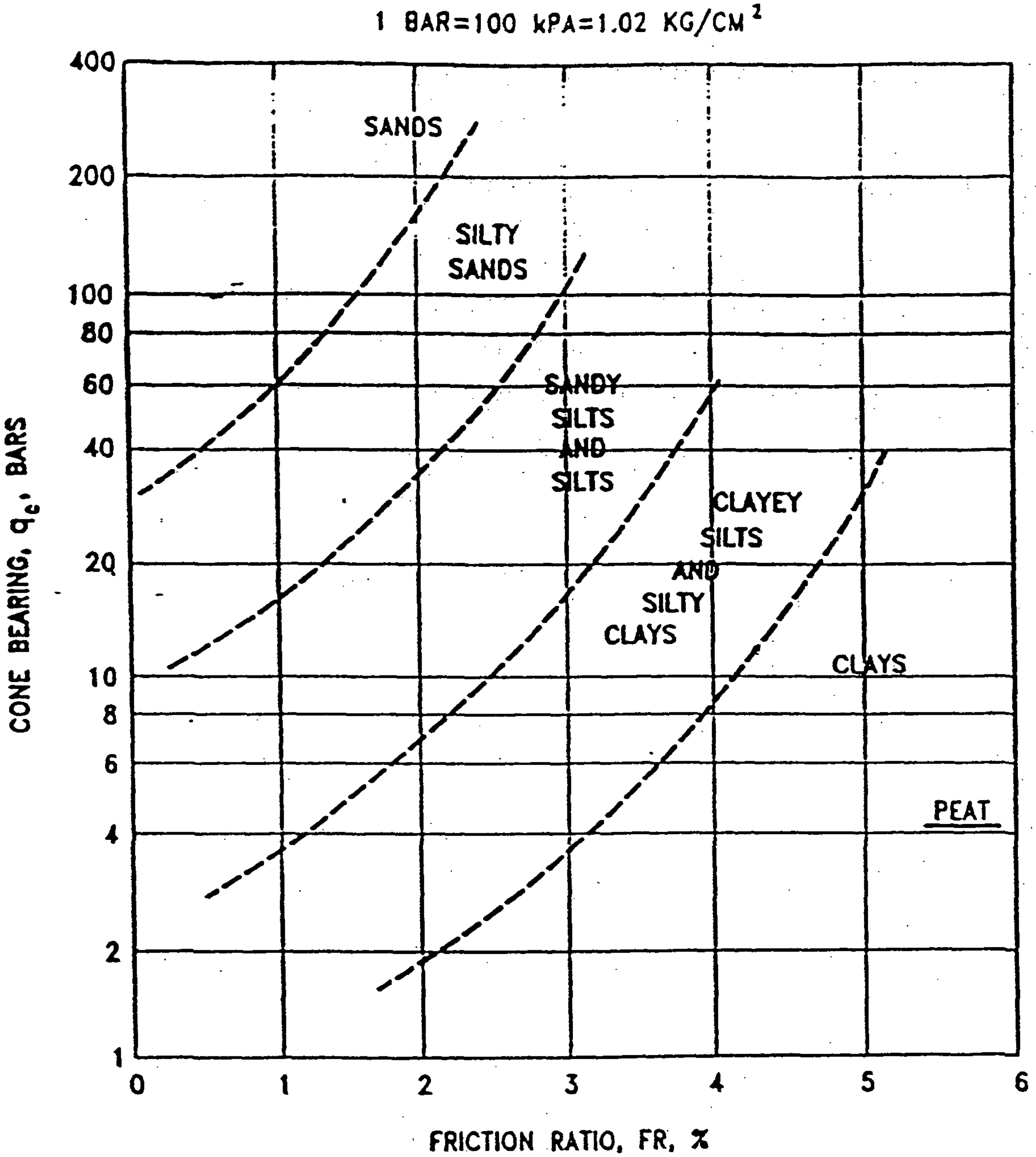
Note: Slickensided and fissured clay may have lower unconfined compressive strengths than shown above because of planes of weakness or shrinkage cracks; consistency ratings of such soils are based on hand penetrometer readings.

TERMS CHARACTERIZING SOIL STRUCTURE

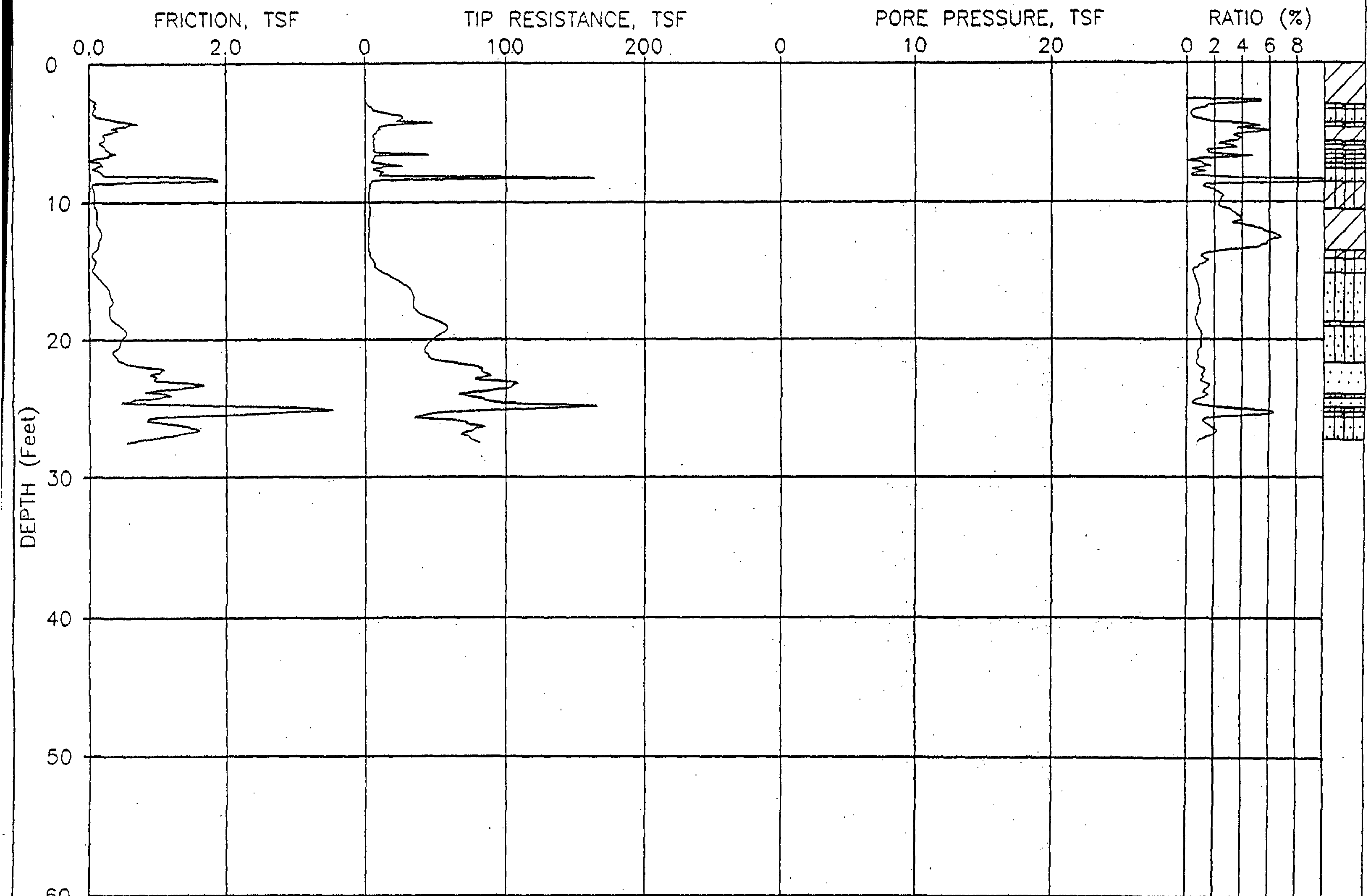
Parting:	paper thin in size
Seam:	1/8" to 3" thick
Layer:	greater than 3"
Fissured:	containing shrinkage cracks, frequently filled with fine sand or silt, usually more or less vertical
Sensitive:	pertaining to cohesive soils that are subject to appreciable loss of strength when remolded
Interbedded:	composed of alternate layers of different soil types
Laminated:	composed of thin layers of varying color and texture
Calcareous:	containing appreciable quantities of calcium carbonate
Well Graded:	having wide range in grain sizes and substantial amounts of all intermediate particle sizes
Poorly Graded:	predominantly of one grain size, or having a range of sizes with some intermediate size missing
Flocculated:	pertaining to cohesive soils that exhibit a loose knit or flakey structure
Slickensided:	having inclined planes of weakness that are slick and glossy in appearance.

Degree of Slickensided Development

Slightly Slickensided:	slickensides present at intervals of 1' to 2', soil does not easily break along these plates
Moderately Slickensided:	slickensides spaced at intervals of 1' to 2', soil breaks easily along these planes
Extremely Slickensided:	continuous and interconnected slickensides spaced at intervals of 4" to 12", soil breaks along the slickensides into pieces 3" to 6" in size
Intensely Slickensided:	slickensides spaced at intervals of less than 4", continuous in all directions; soil breaks down along planes into nodules 1/4" to 2" in size.



CAMPANELLA AND ROBERTSON CLASSIFICATION CHART (1983)



JOB NUMBER: 98-1066

CPT NUMBER: 01

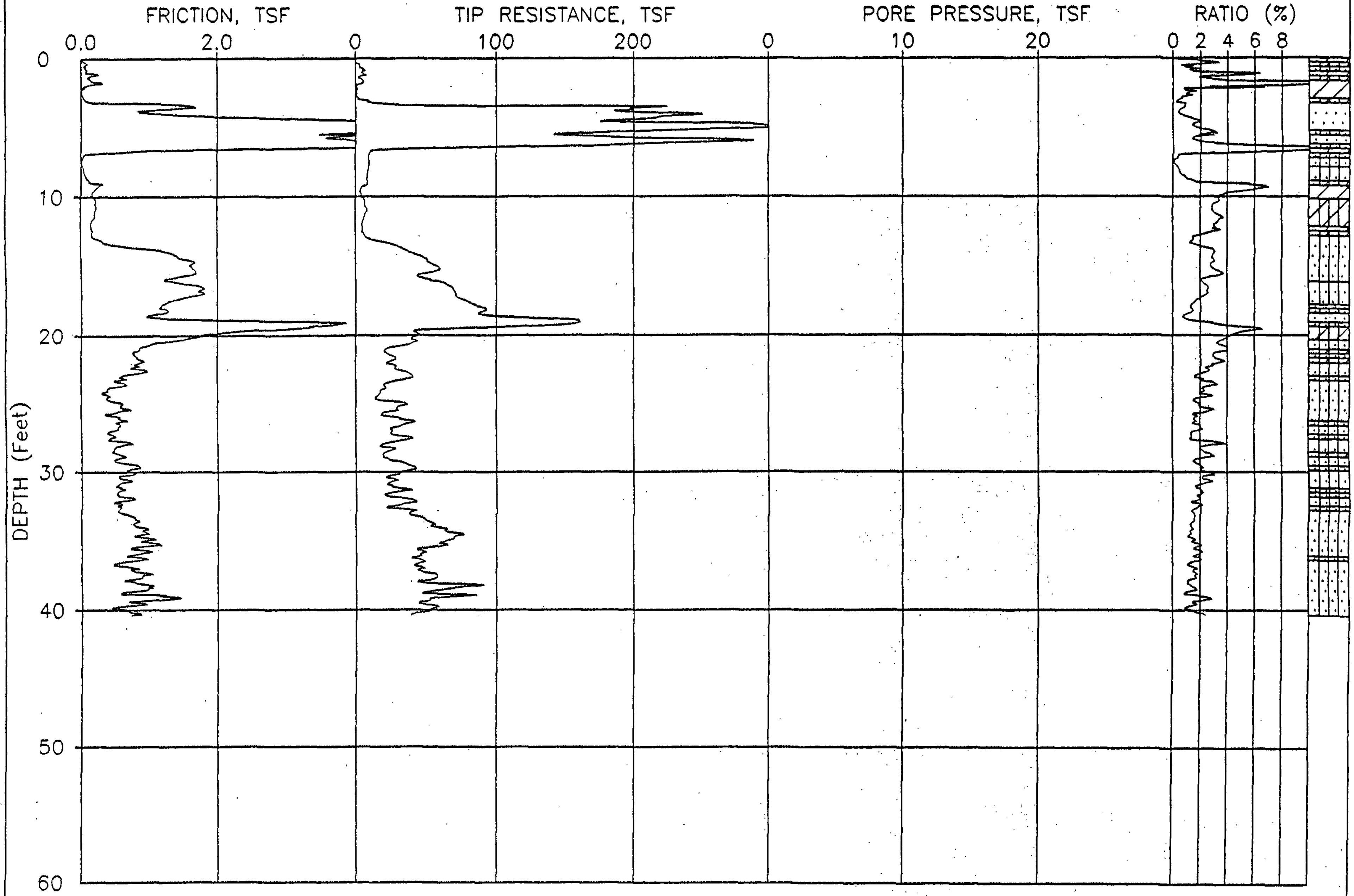
DATE: 11-17-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEV607

PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1066

CPT NUMBER: 02

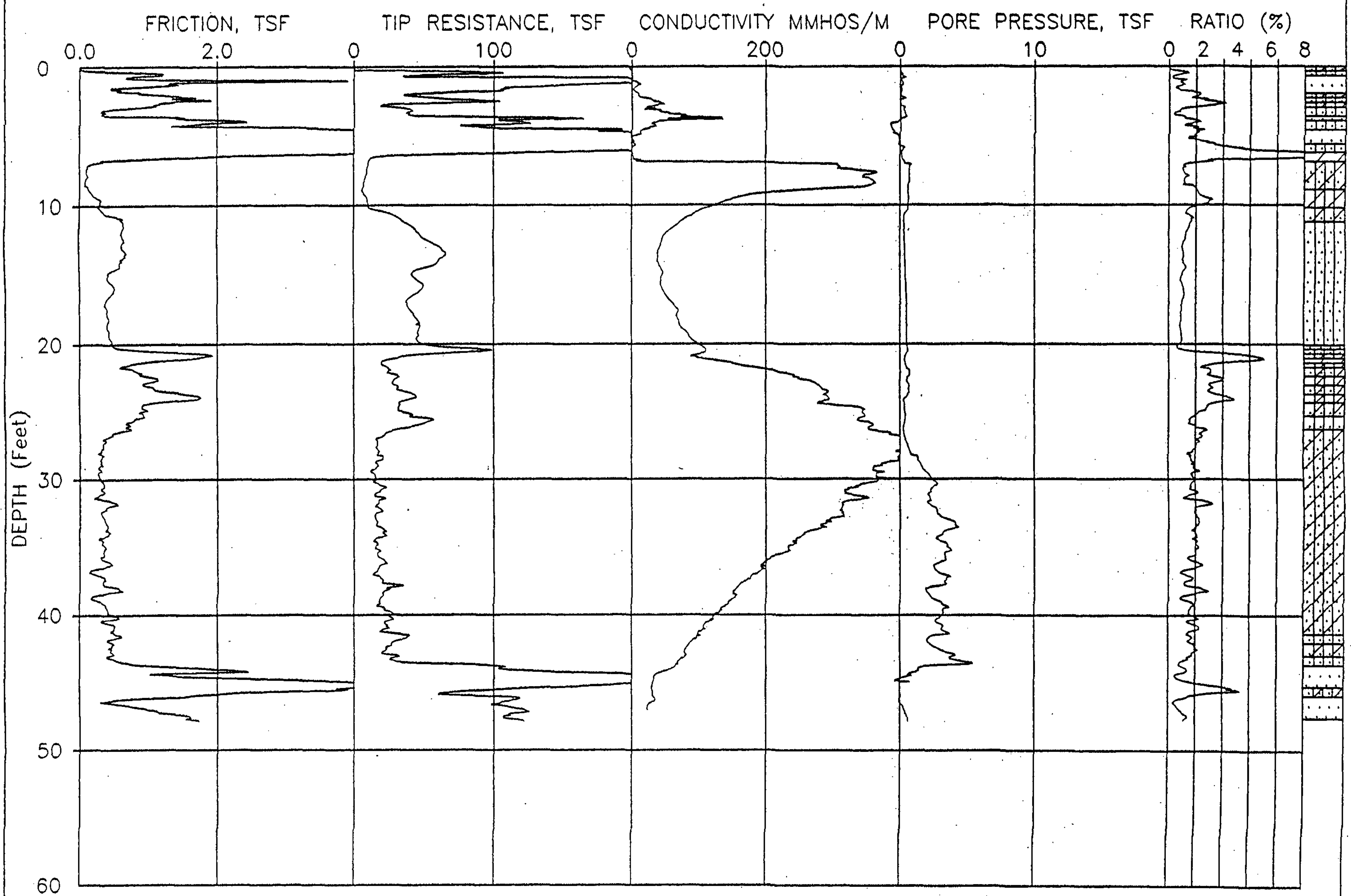
DATE: 11-17-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEV607

PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1066

ELEVATION: 0.00

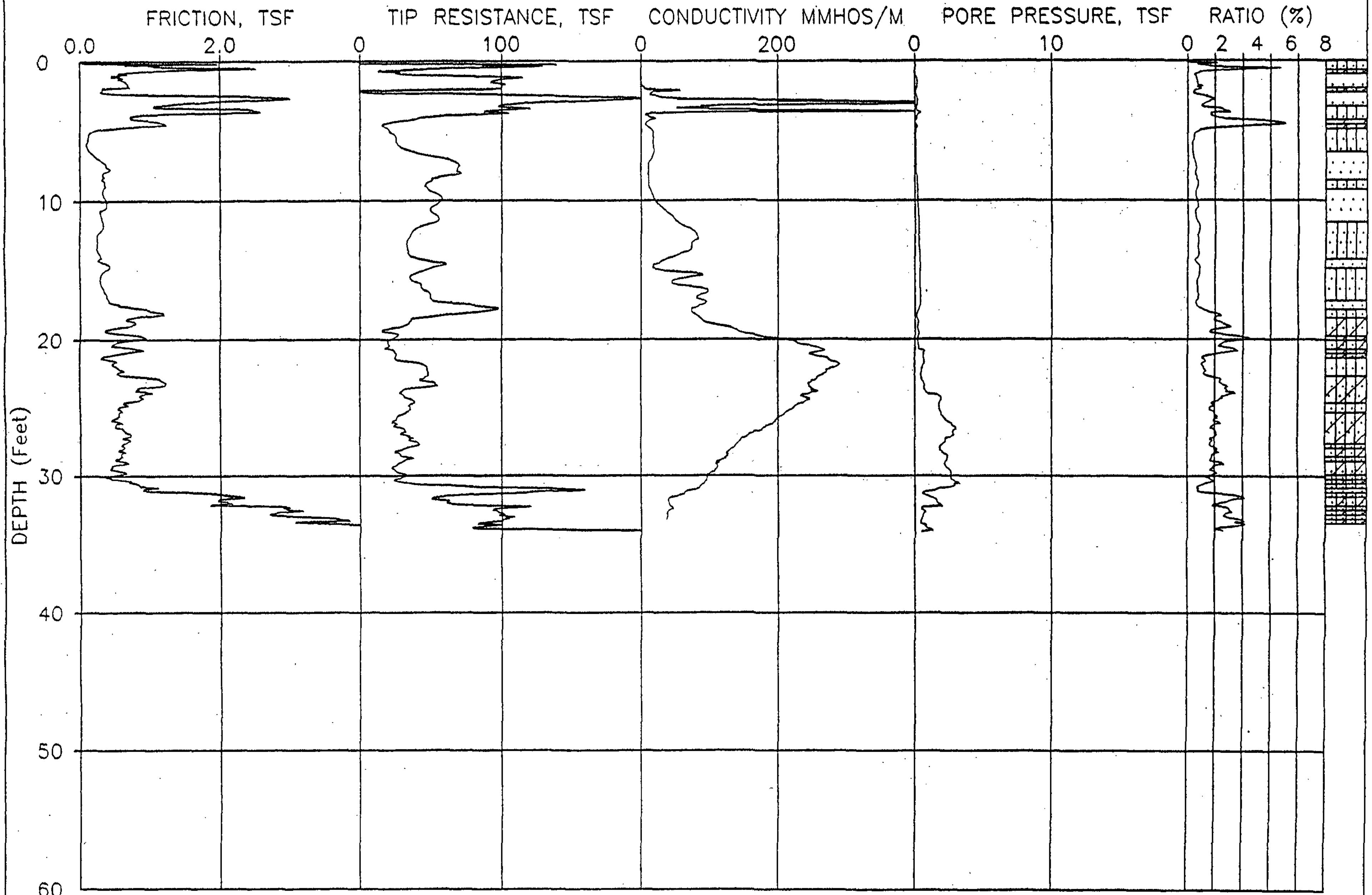
CPT NUMBER: 03

CONE NUMBER: F7.5CKEGW413

DATE: 11-13-1998

PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1066

ELEVATION: 0.00

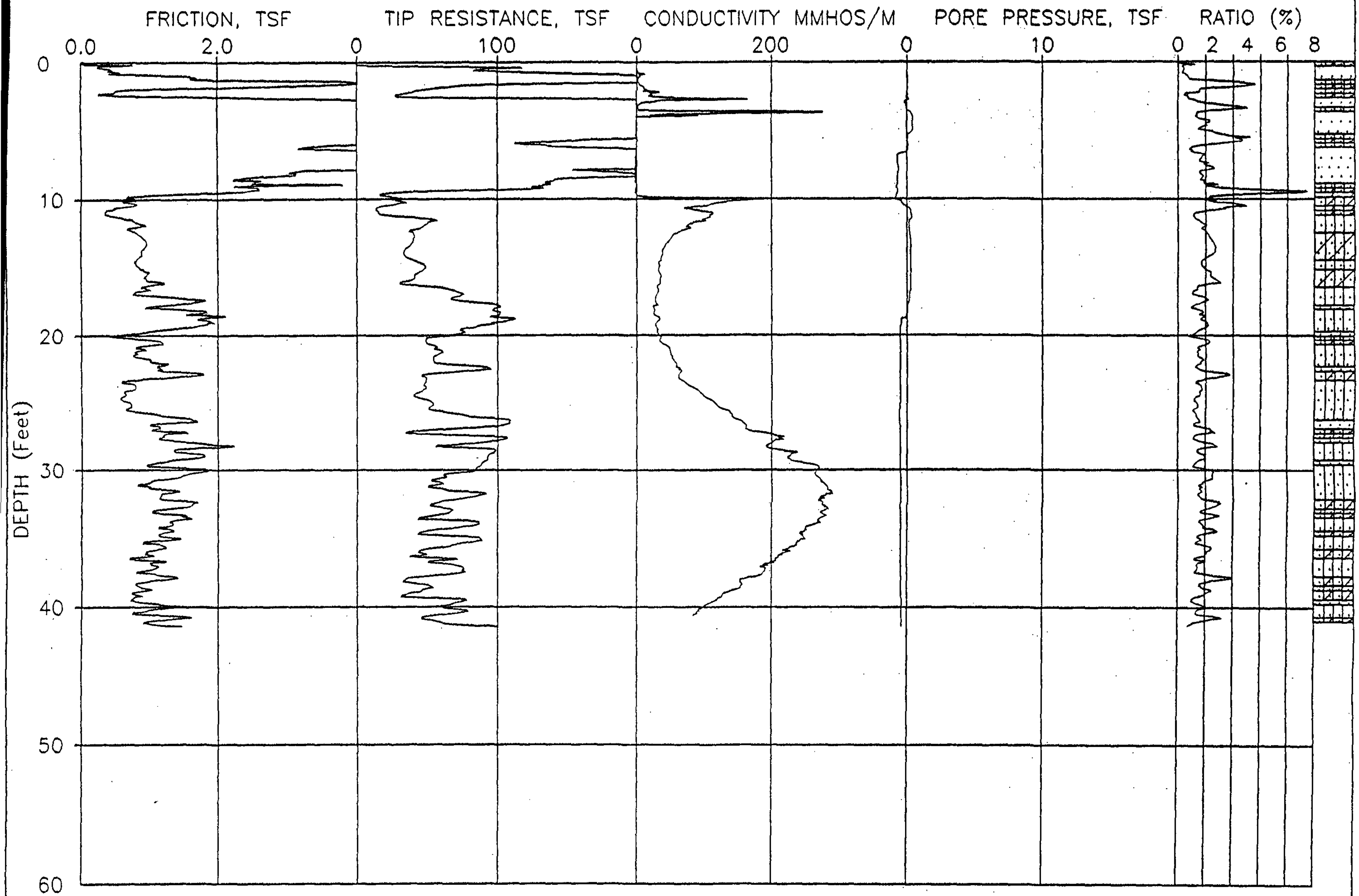
CPT NUMBER: 04

CONE NUMBER: F7.5CKEGW413

DATE: 11-13-1998

PLATE: 1 OF 1

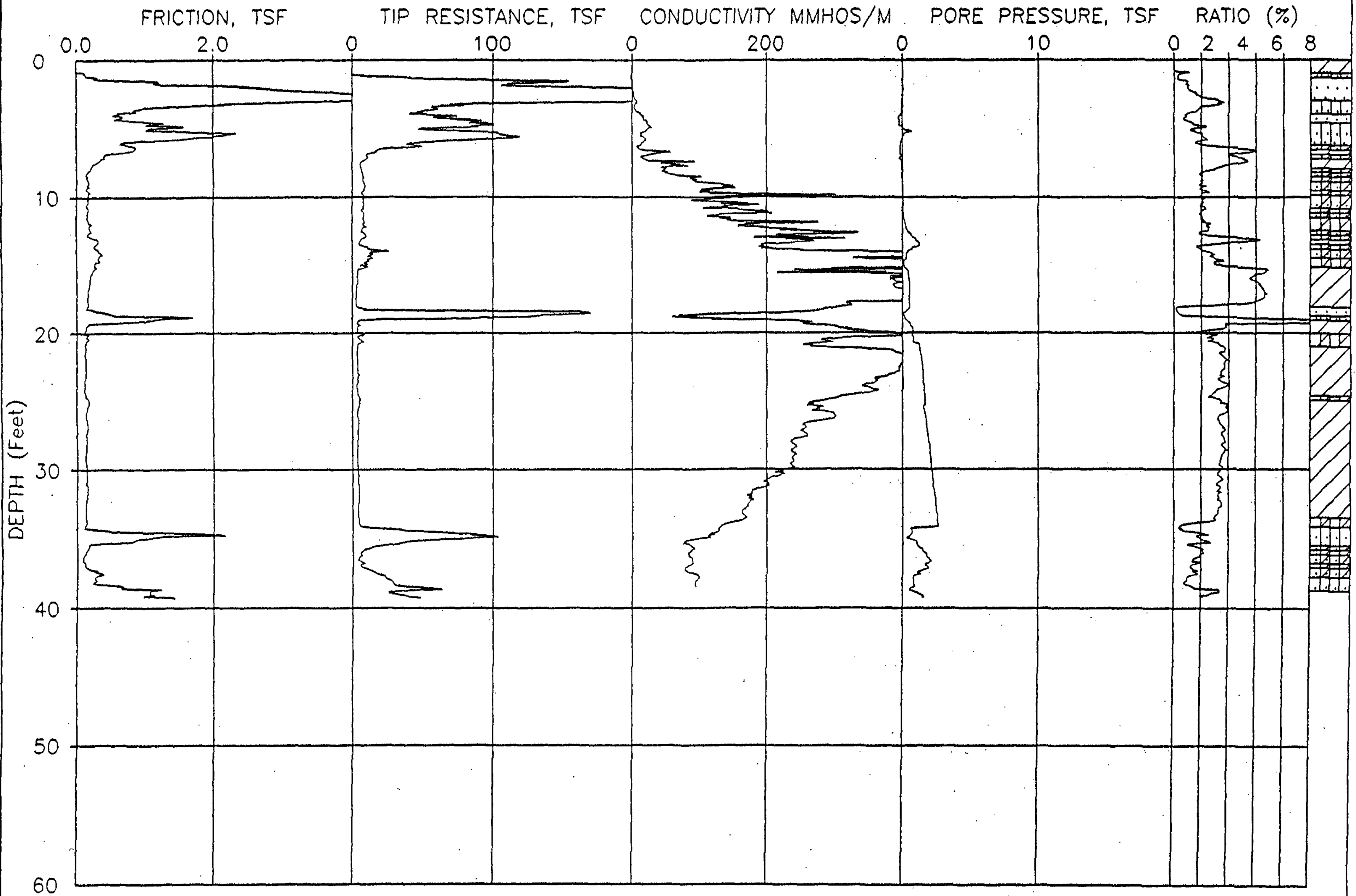
FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1066
CPT NUMBER: 05A
DATE: 11-16-1998

ELEVATION: 0.00
CONE NUMBER: F7.5CKEGW413
PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1066

ELEVATION: 0.00

CPT NUMBER: 06

CONE NUMBER: F7.5CKEGW413

DATE: 11-13-1998

PLATE: 1 OF 1

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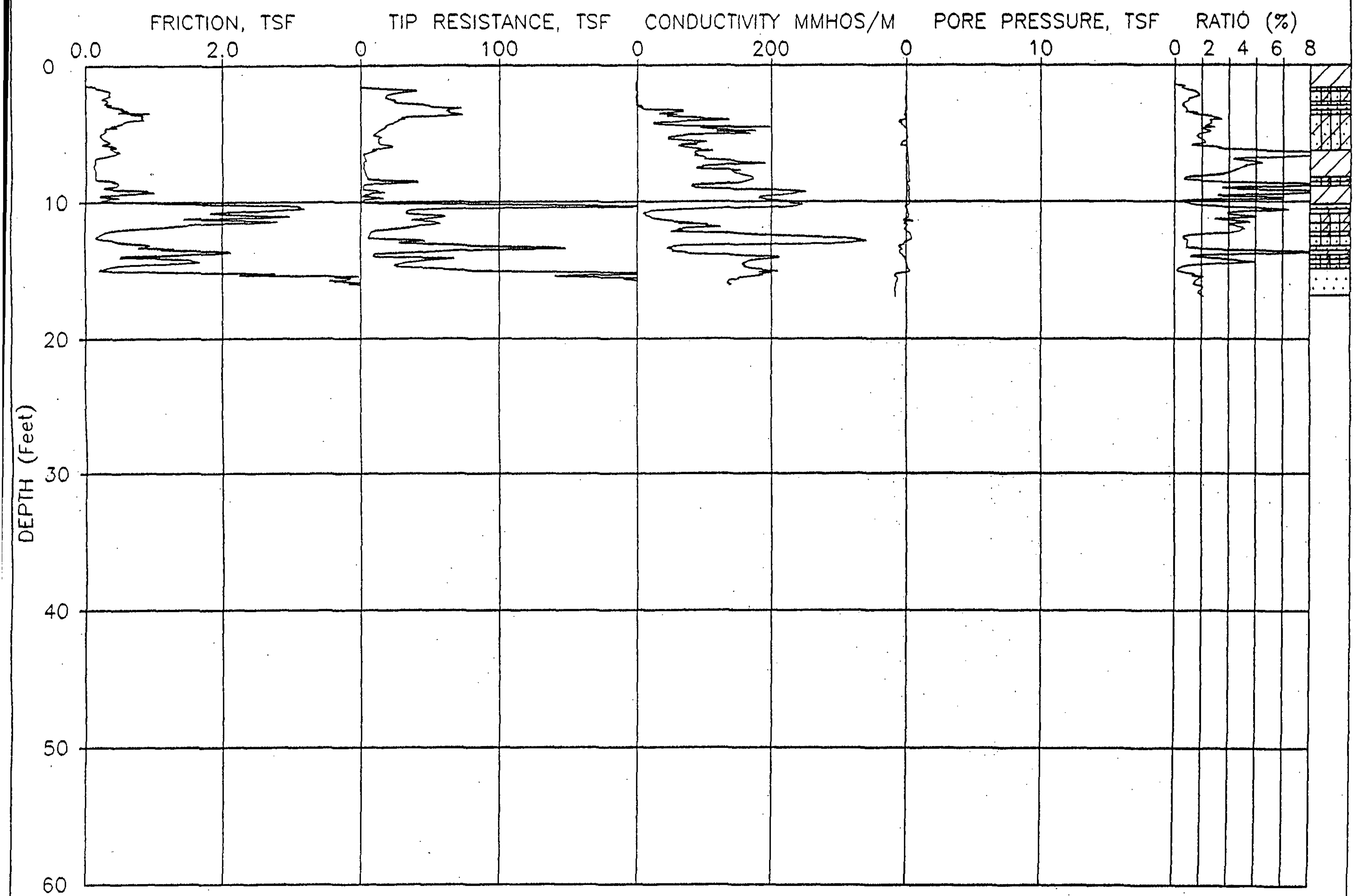


JOB NUMBER: 98-1066

CPT NUMBER: 07

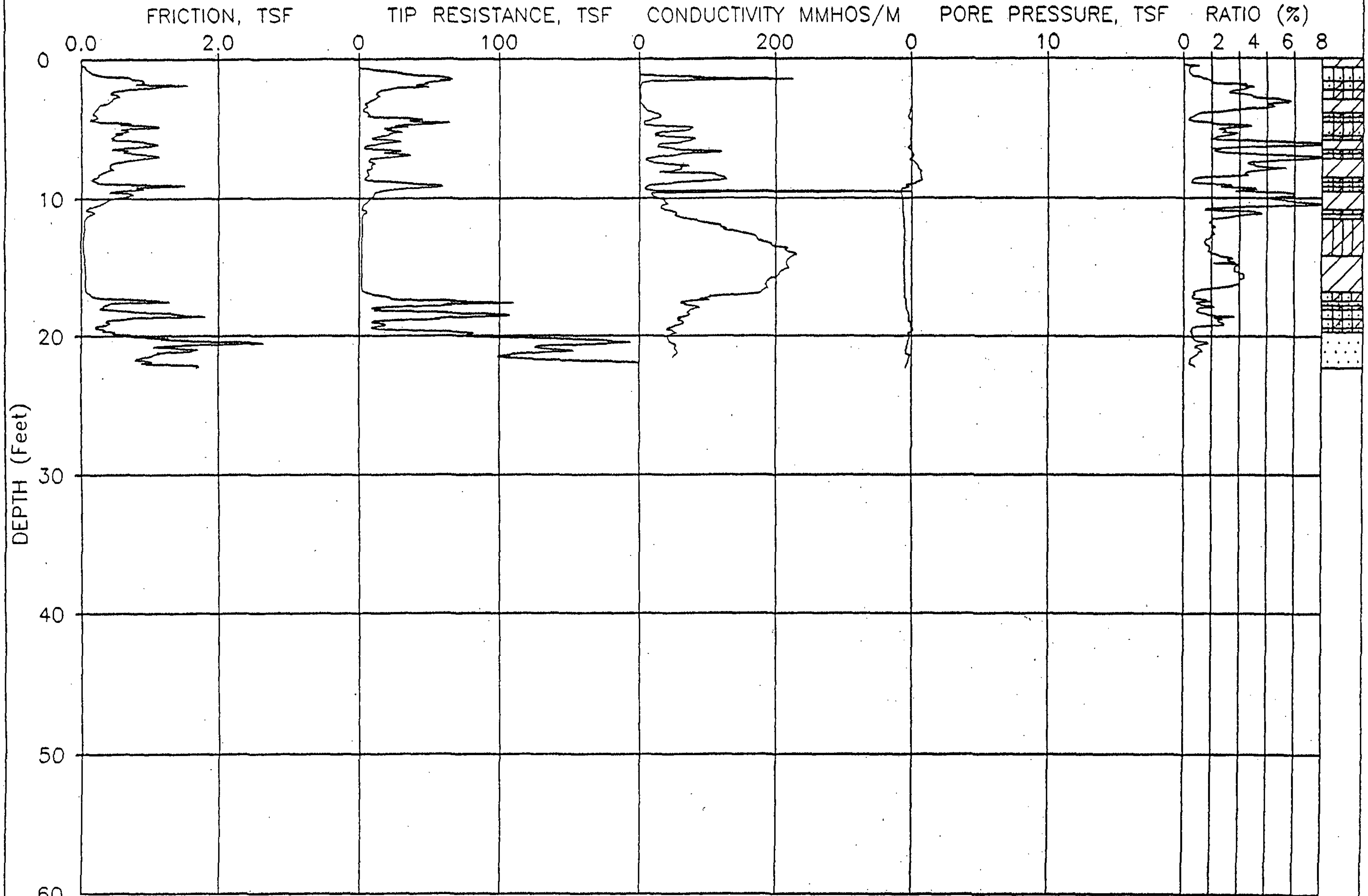
DATE: 11-13-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEGW413

PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1066

ELEVATION: 0.00

CPT NUMBER: 08

CONE NUMBER: F7.5CKEGW413

DATE: 11-13-1998

PLATE: 1 OF 1

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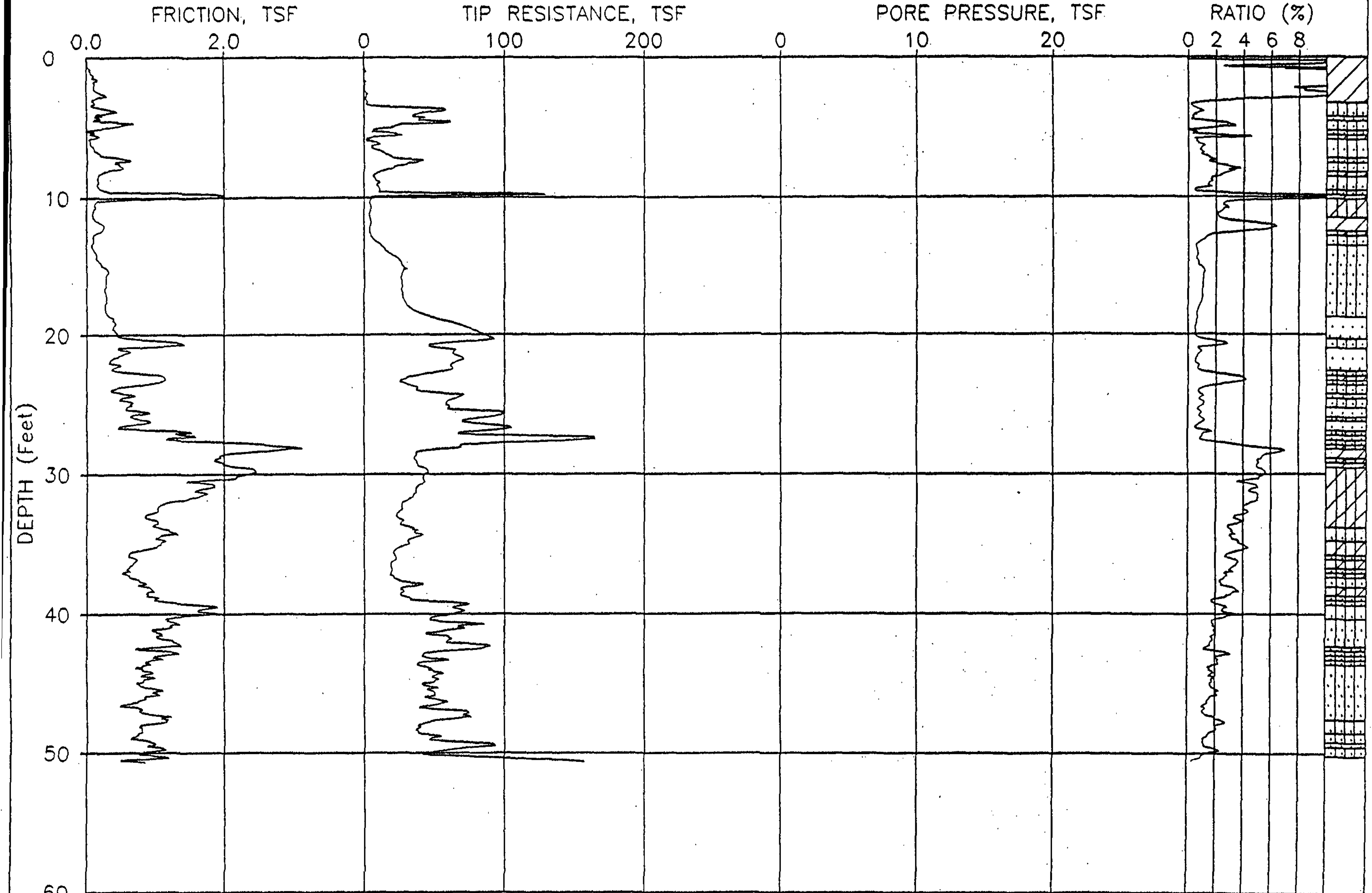

JOB NUMBER: 98-1066

ELEVATION: 0.00

CPT NUMBER: 09

CONE NUMBER: F7.5CKEV607

DATE: 11-17-1998

PLATE: 1 OF 1

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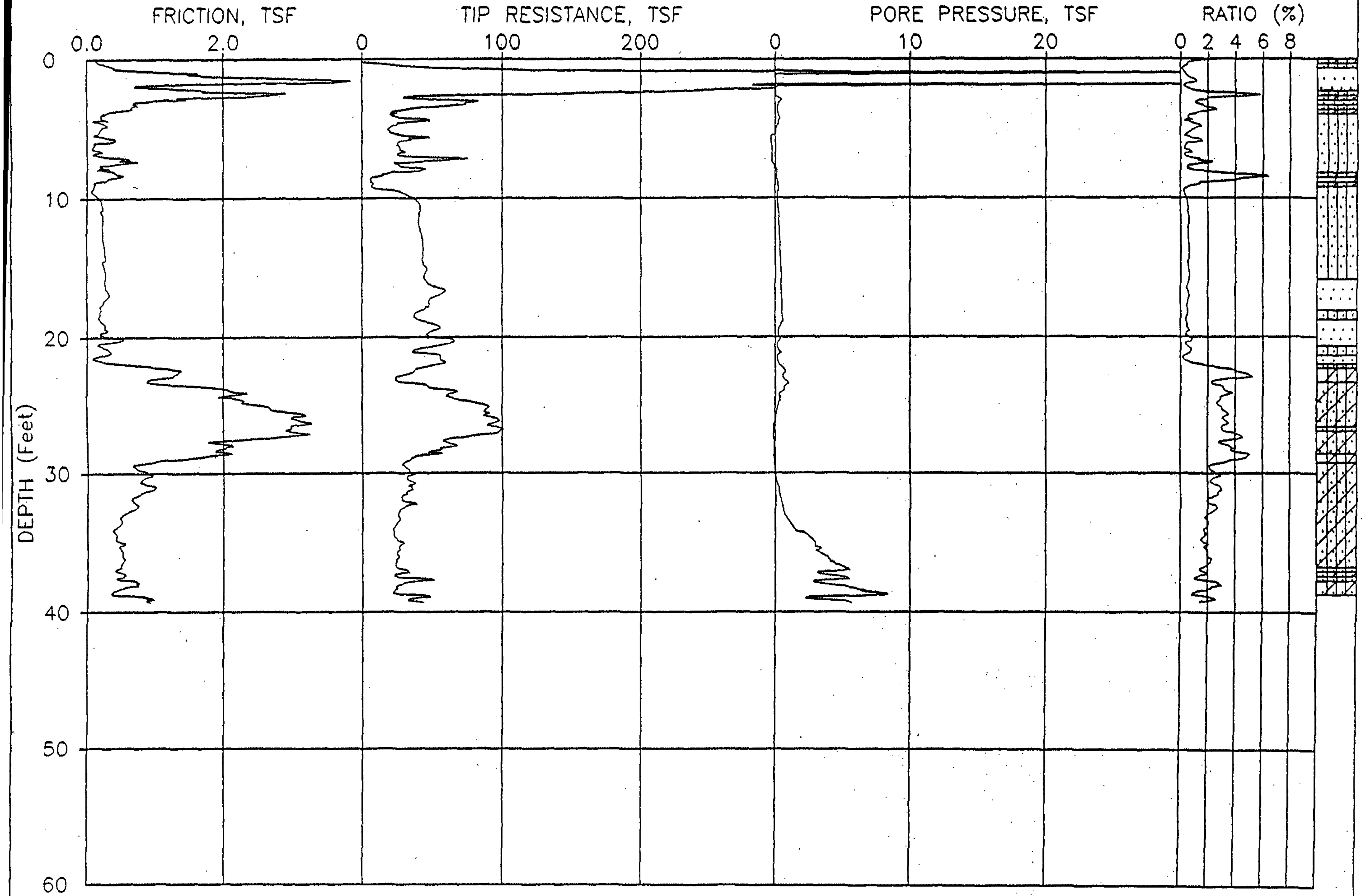


JOB NUMBER: 98-1066

ELEVATION: 0.00

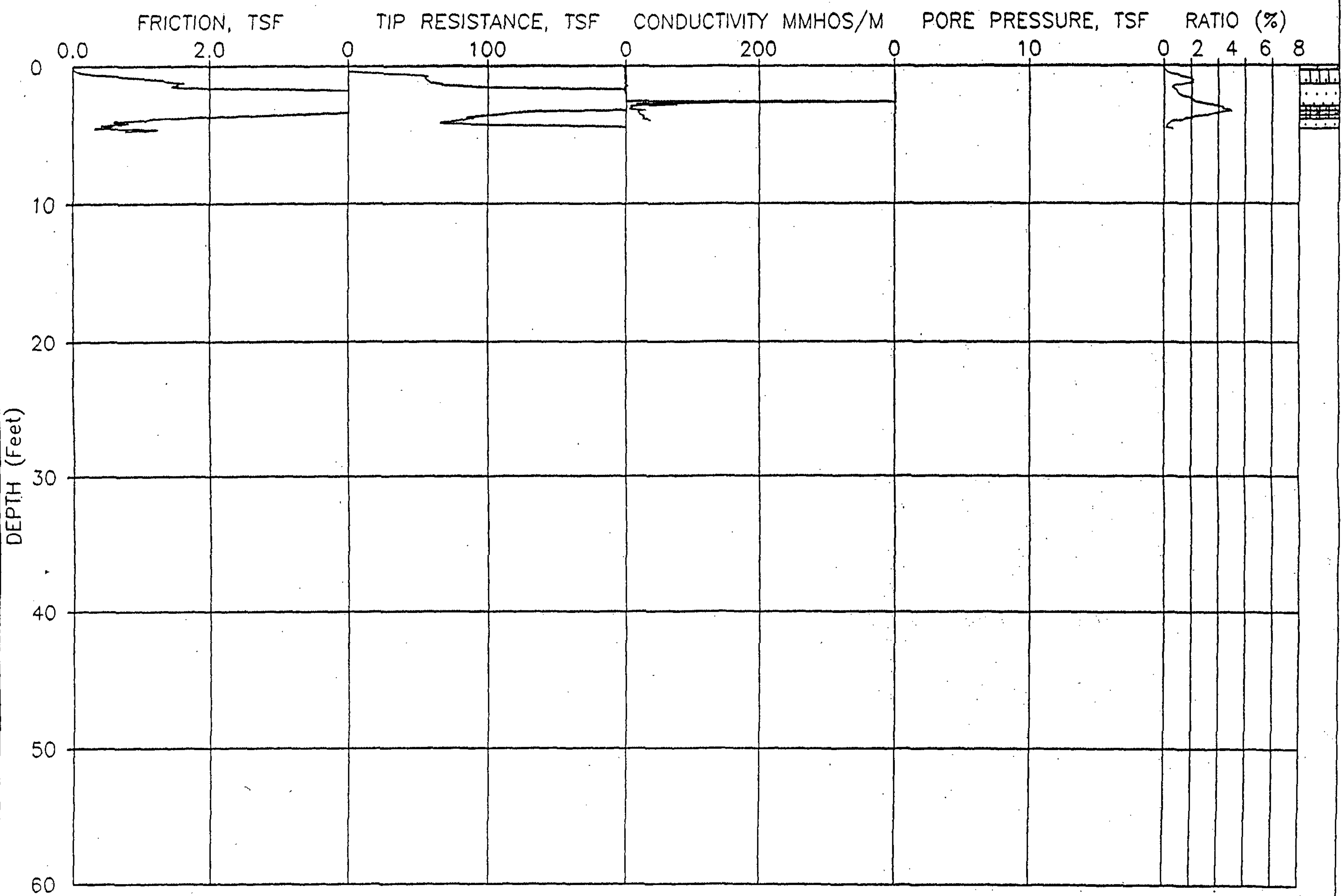
CPT NUMBER: 10

CONE NUMBER: F7.5CKEW892

DATE: 11-18-1998

PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1066

ELEVATION: 0.00

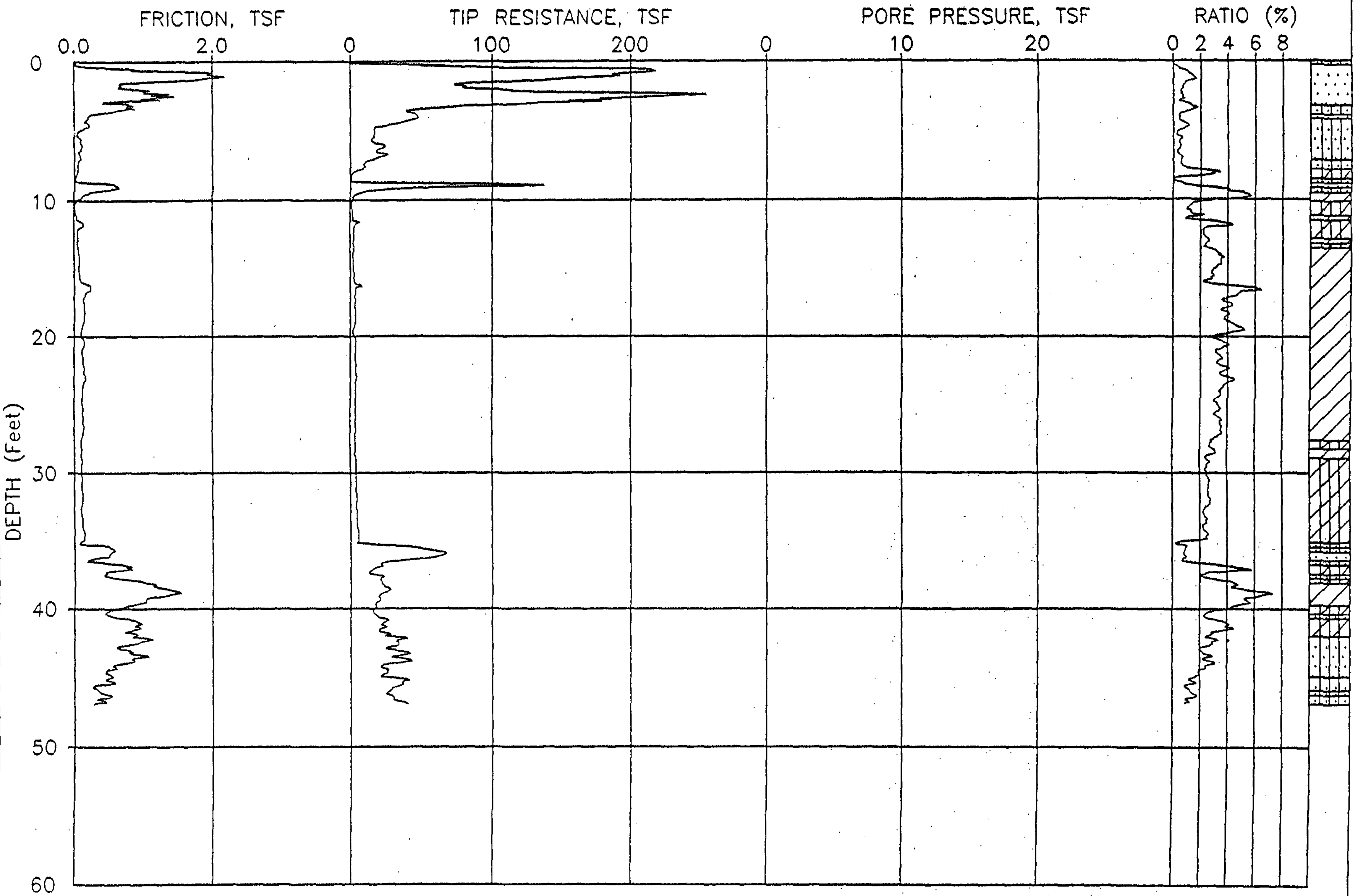
CPT NUMBER: 11

CONE NUMBER: F7.5CKEGW413

DATE: 11-16-1998

PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1066

CPT NUMBER: 12

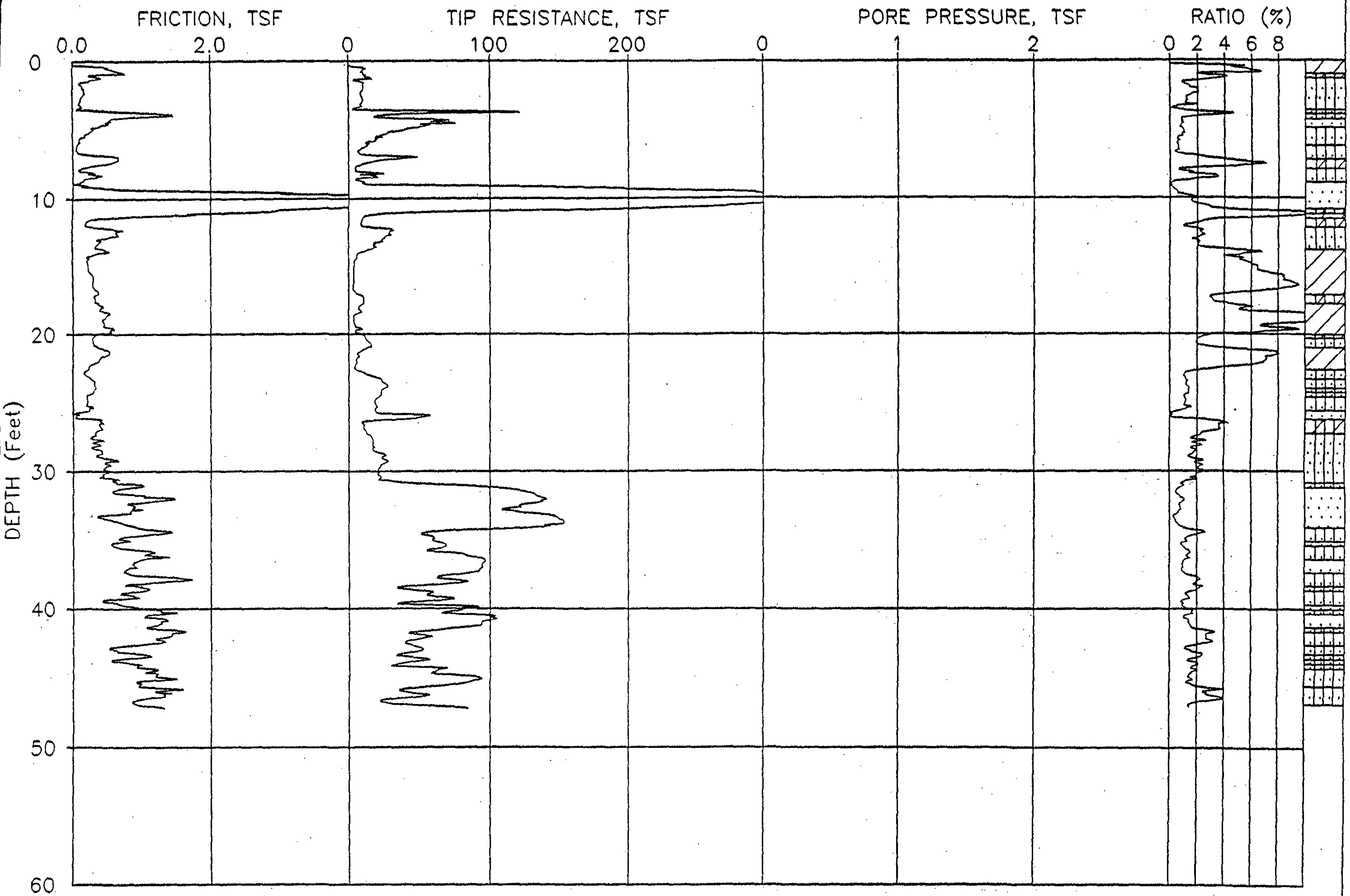
DATE: 11-16-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEV607

PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1066

ELEVATION: 0.00

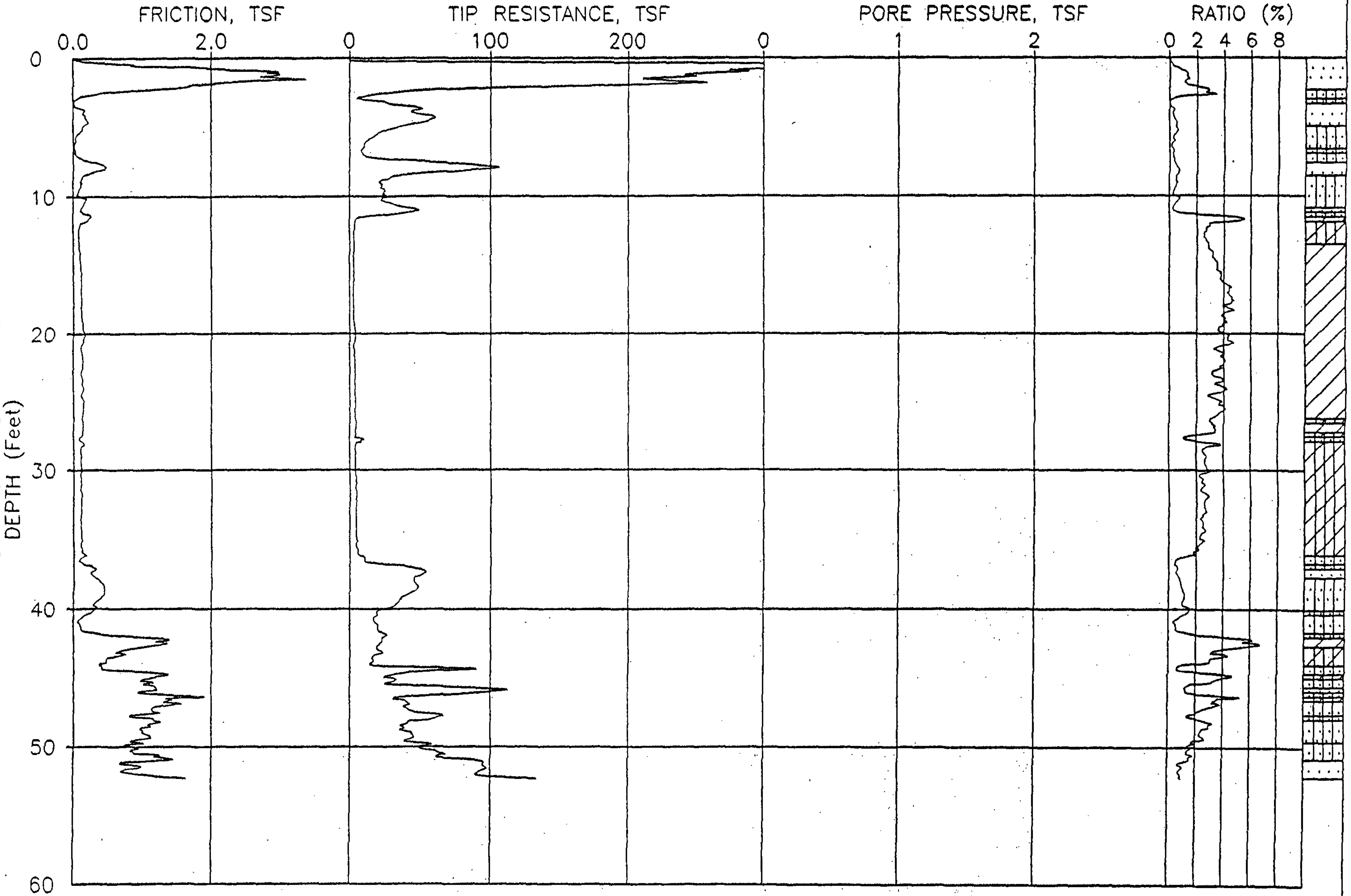
CPT NUMBER: 13

CONE NUMBER: F7.5CKEV607

DATE: 11-16-1998

PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1066

CPT NUMBER: 14

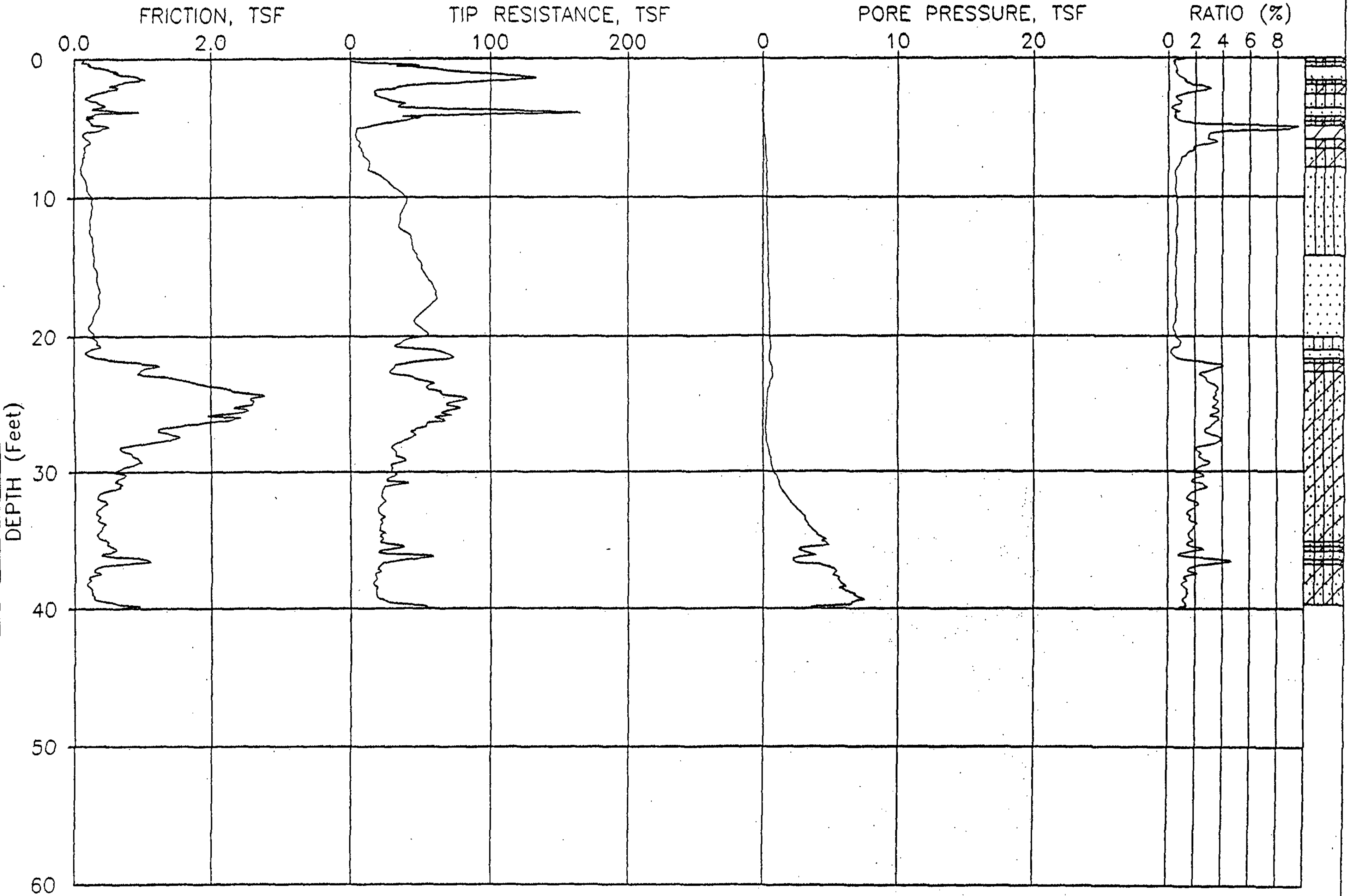
DATE: 11-17-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEV607

PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1066

CPT NUMBER: 15

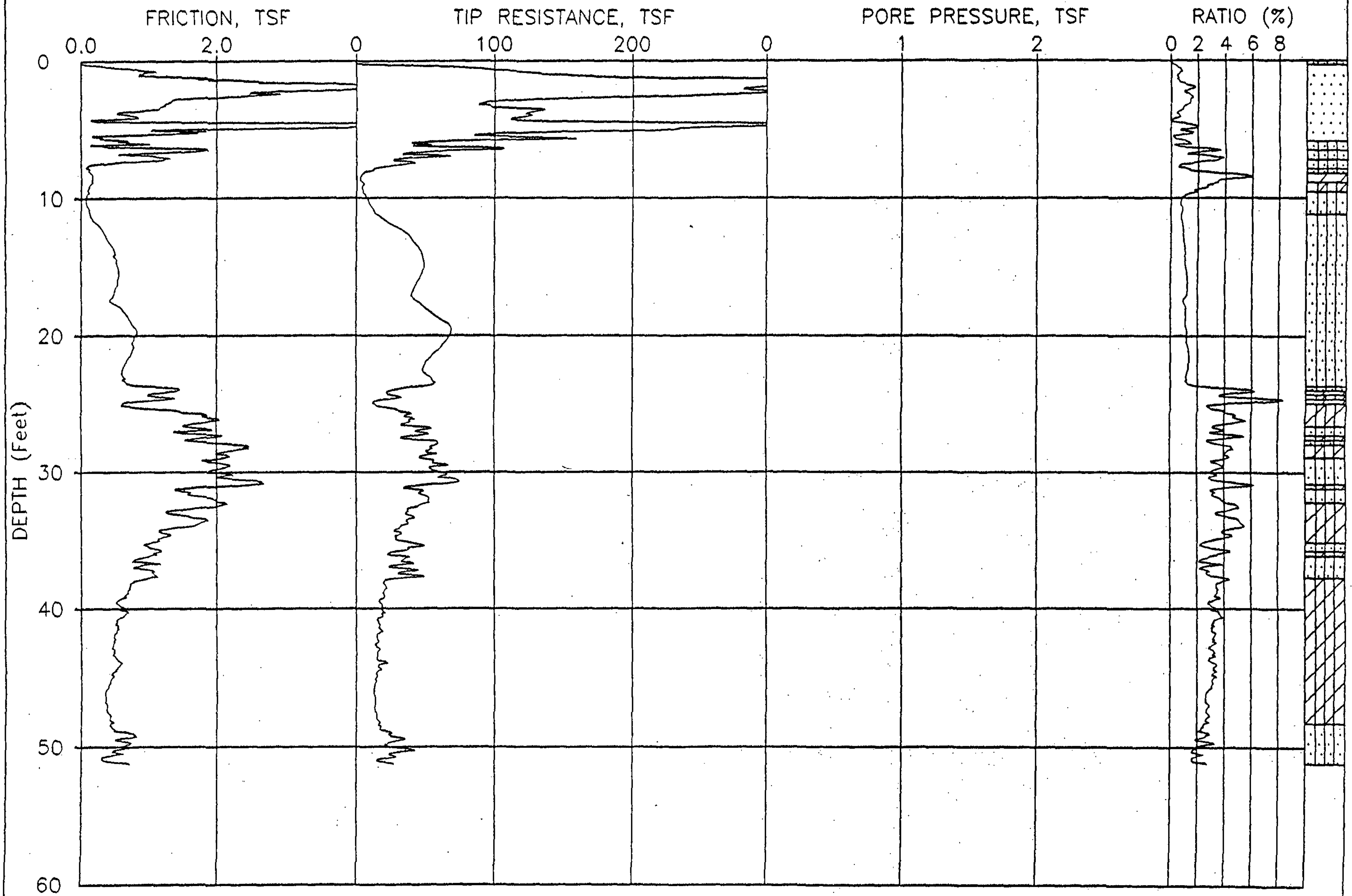
DATE: 11-18-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEW892

PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1066

CPT NUMBER: 16

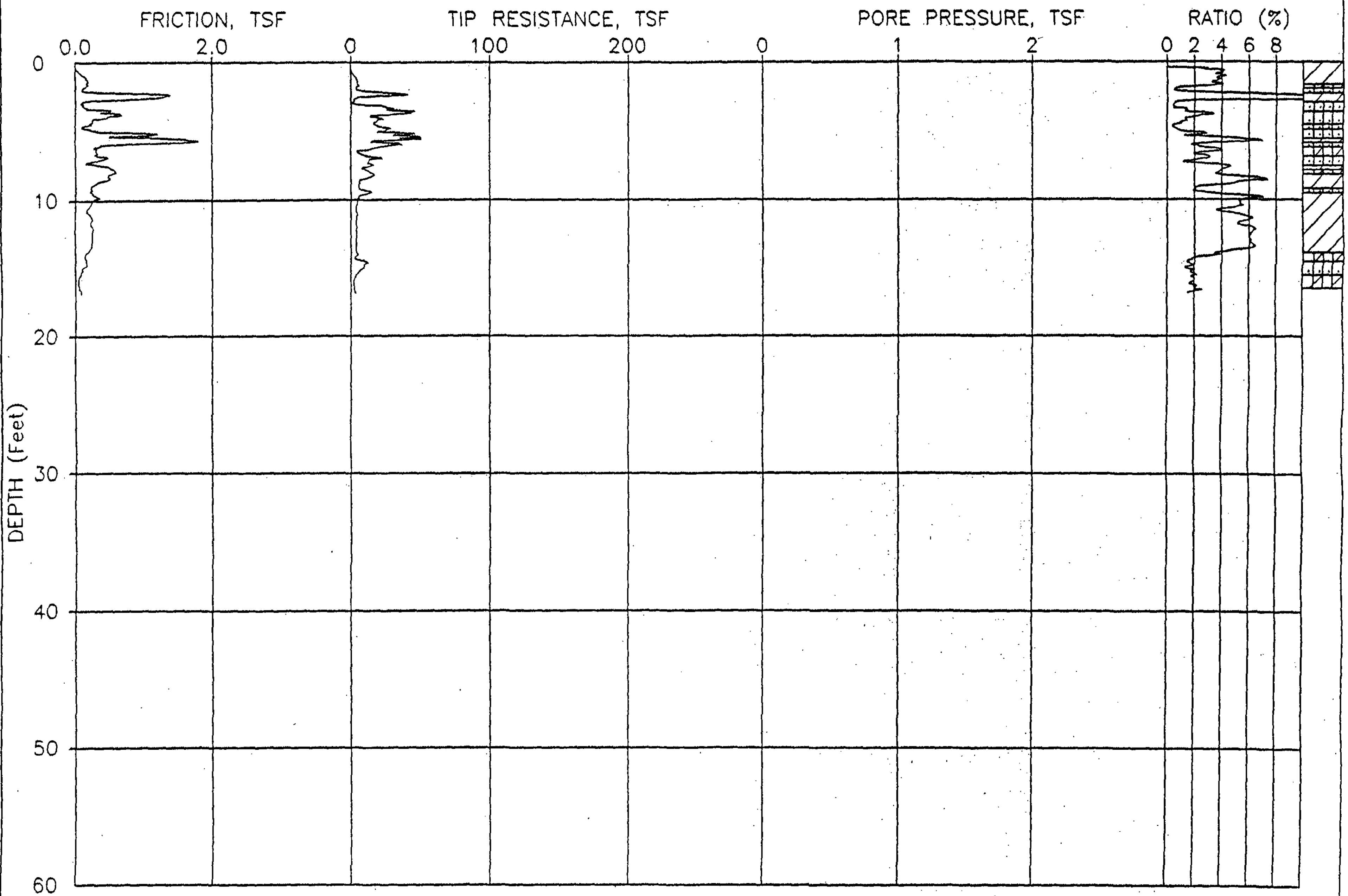
DATE: 11-19-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEV607

PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1066

CPT NUMBER: 17

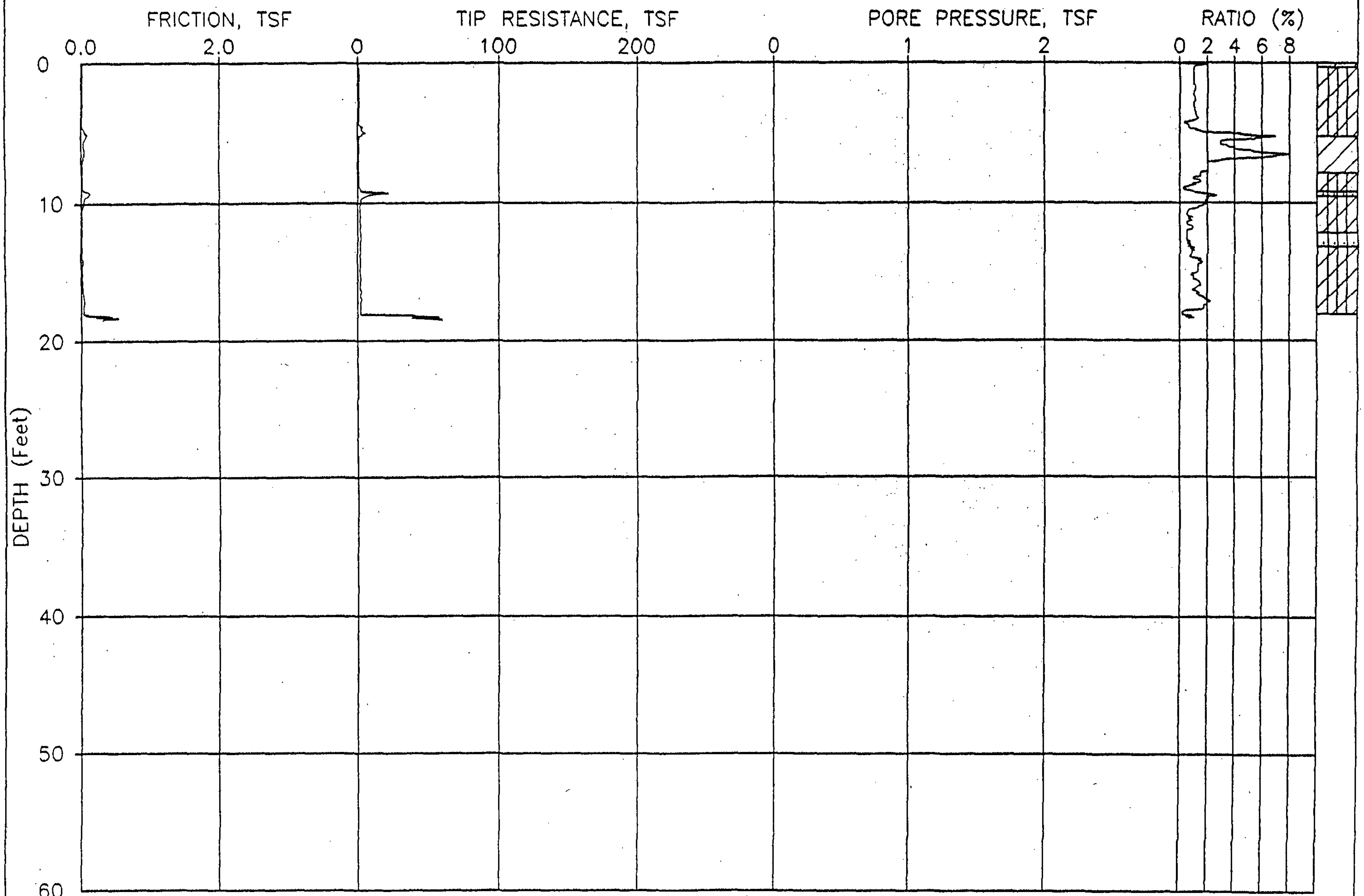
DATE: 11-19-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEV607

PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1066

CPT NUMBER: 18

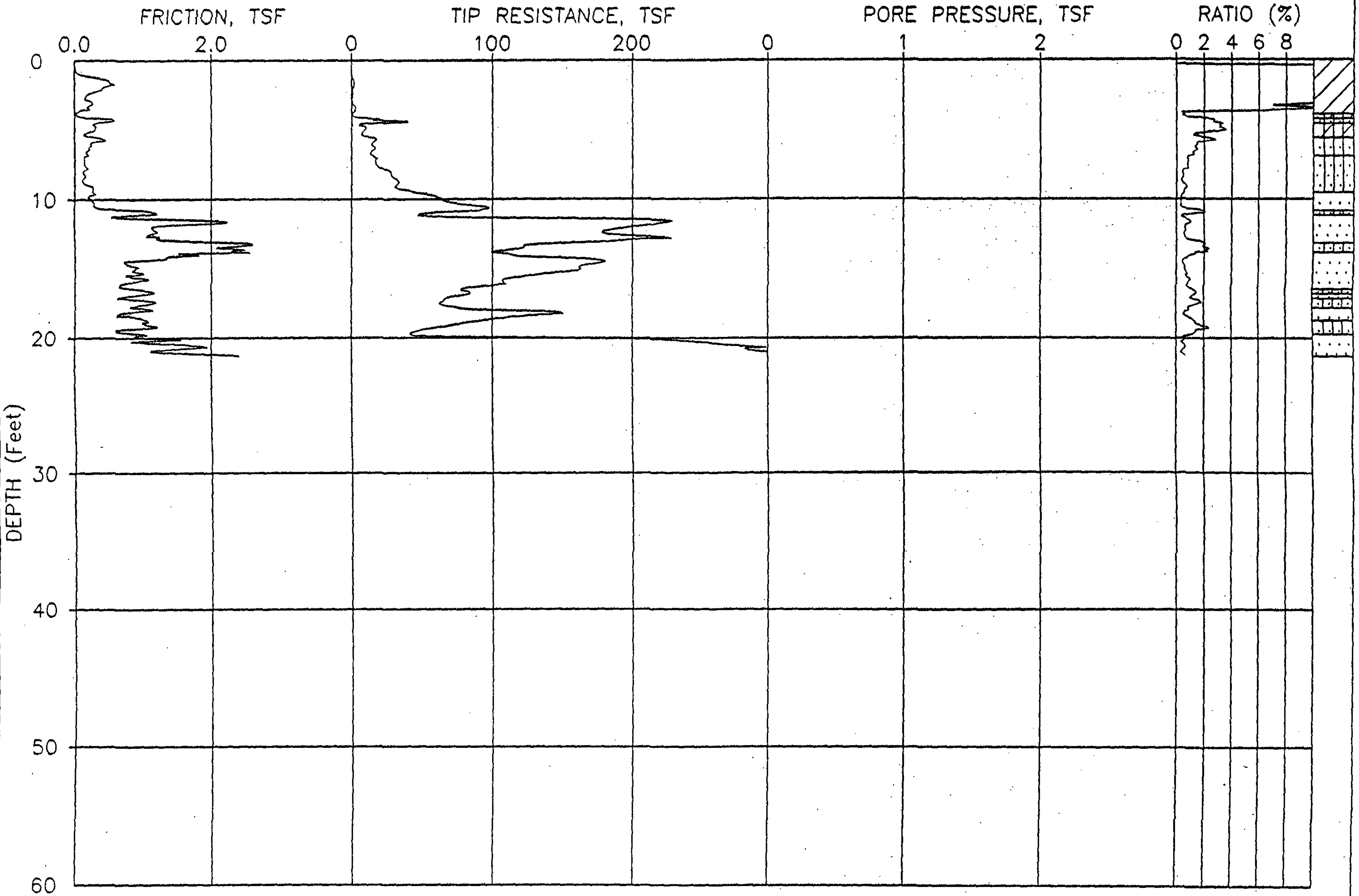
DATE: 11-19-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEV607

PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1066

CPT NUMBER: 19

DATE: 11-19-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEV607

PLATE: 1 OF 1

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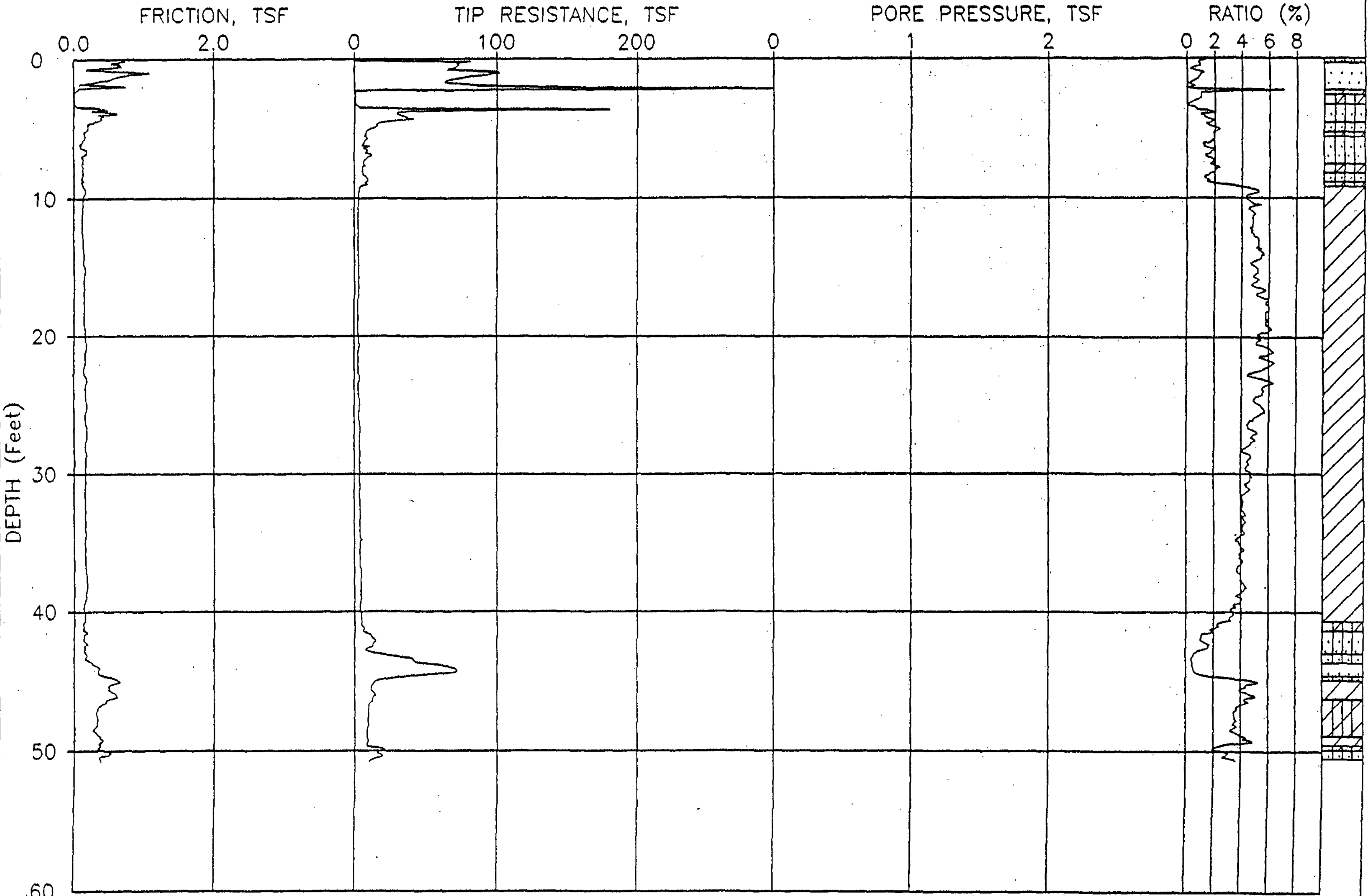


JOB NUMBER: 98-1066

CPT NUMBER: 21

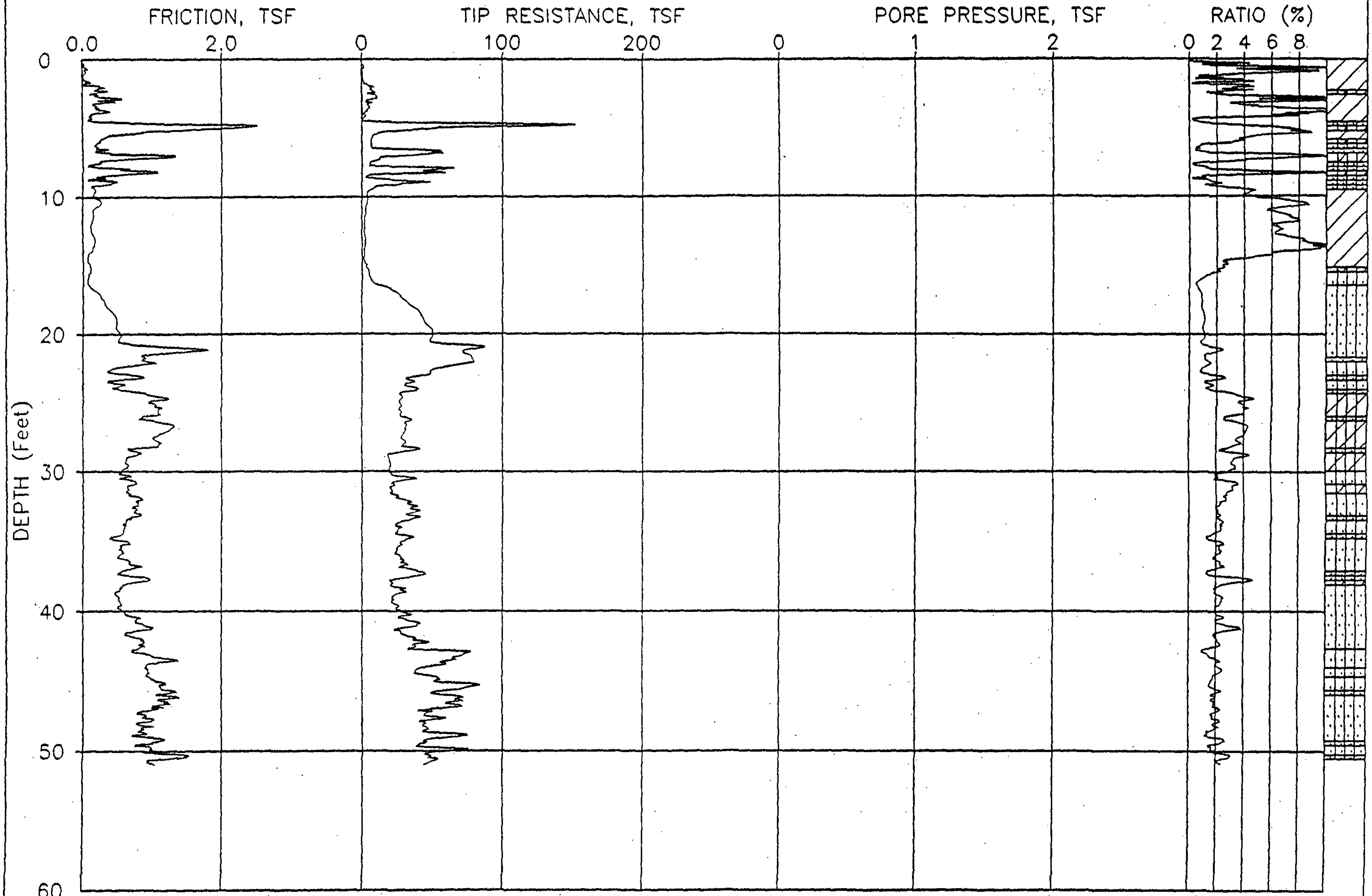
DATE: 11-22-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEV607

PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1066

CPT NUMBER: 24

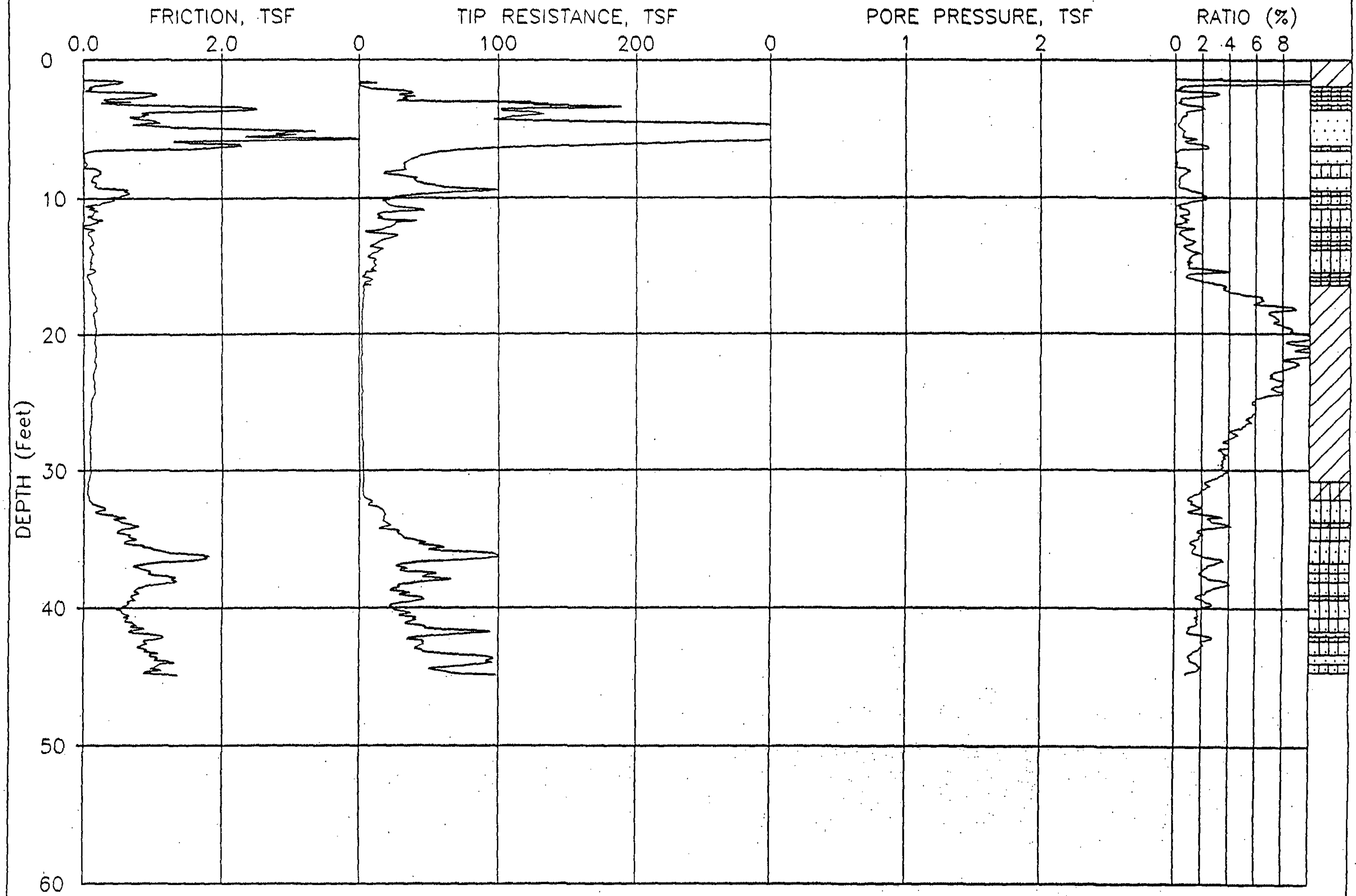
DATE: 11-22-1998

ELEVATION: 0.00

CONE NUMBER: F7.5CKEV607

PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1066

ELEVATION: 0.00

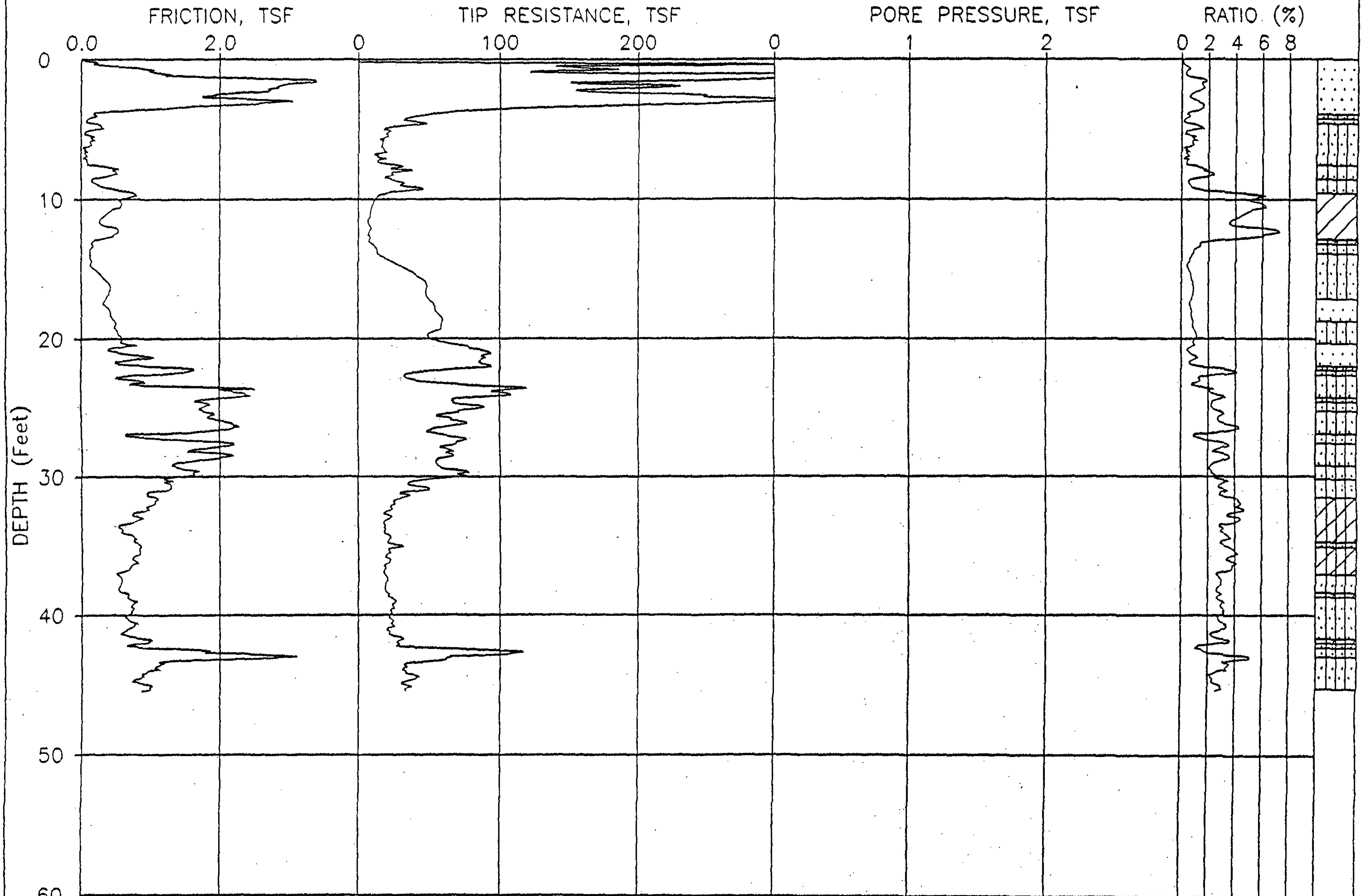
CPT NUMBER: 25

CONE NUMBER: F7.5CKEV607

DATE: 11-22-1998

PLATE: 1 OF 1

FUGRO GEOSCIENCES,INC



JOB NUMBER: 98-1066

CPT NUMBER: 26

DATE: 11-22-1998

ELEVATION: 0.00

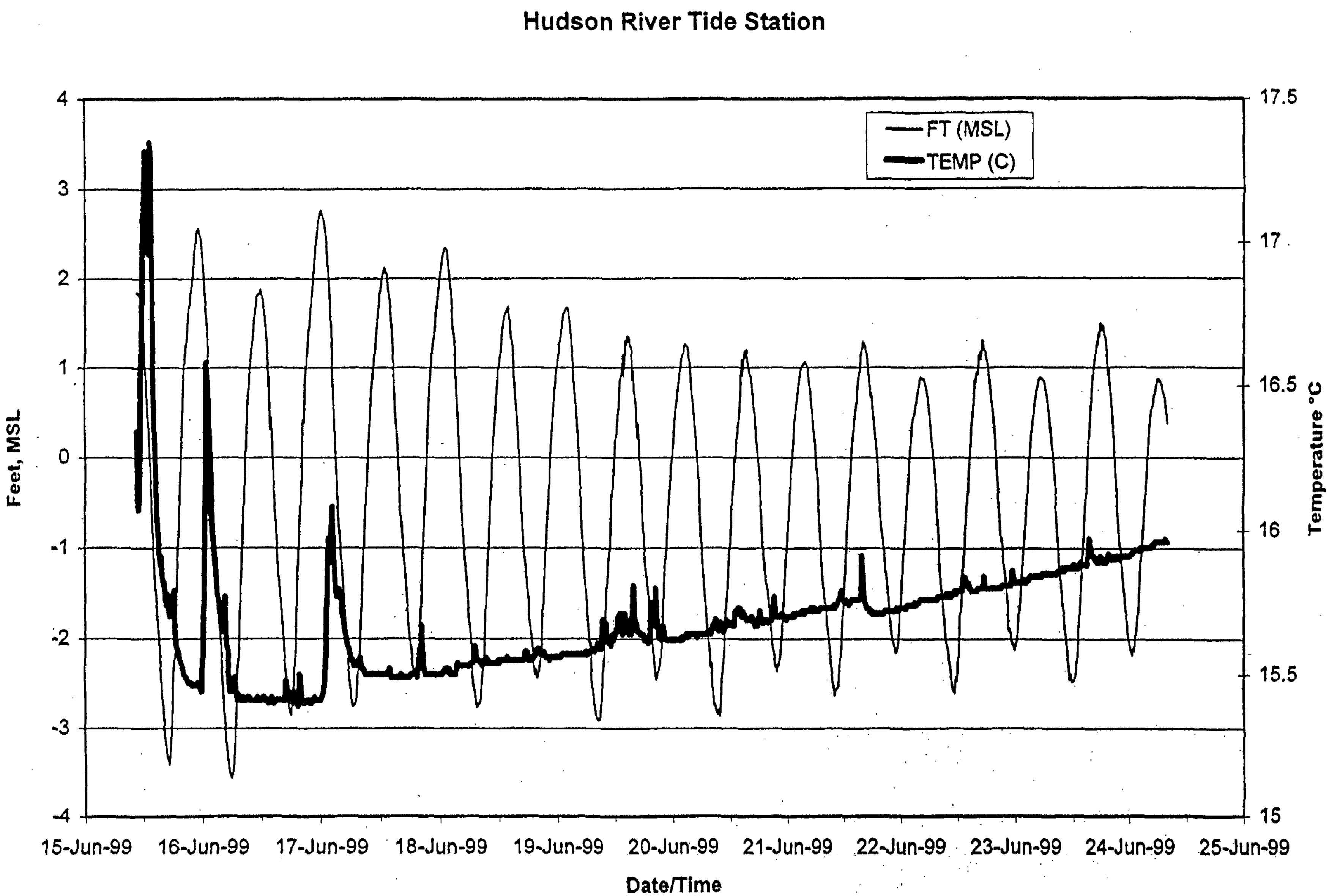
CONE NUMBER: F7.5CKEV607

PLATE: 1 OF 1

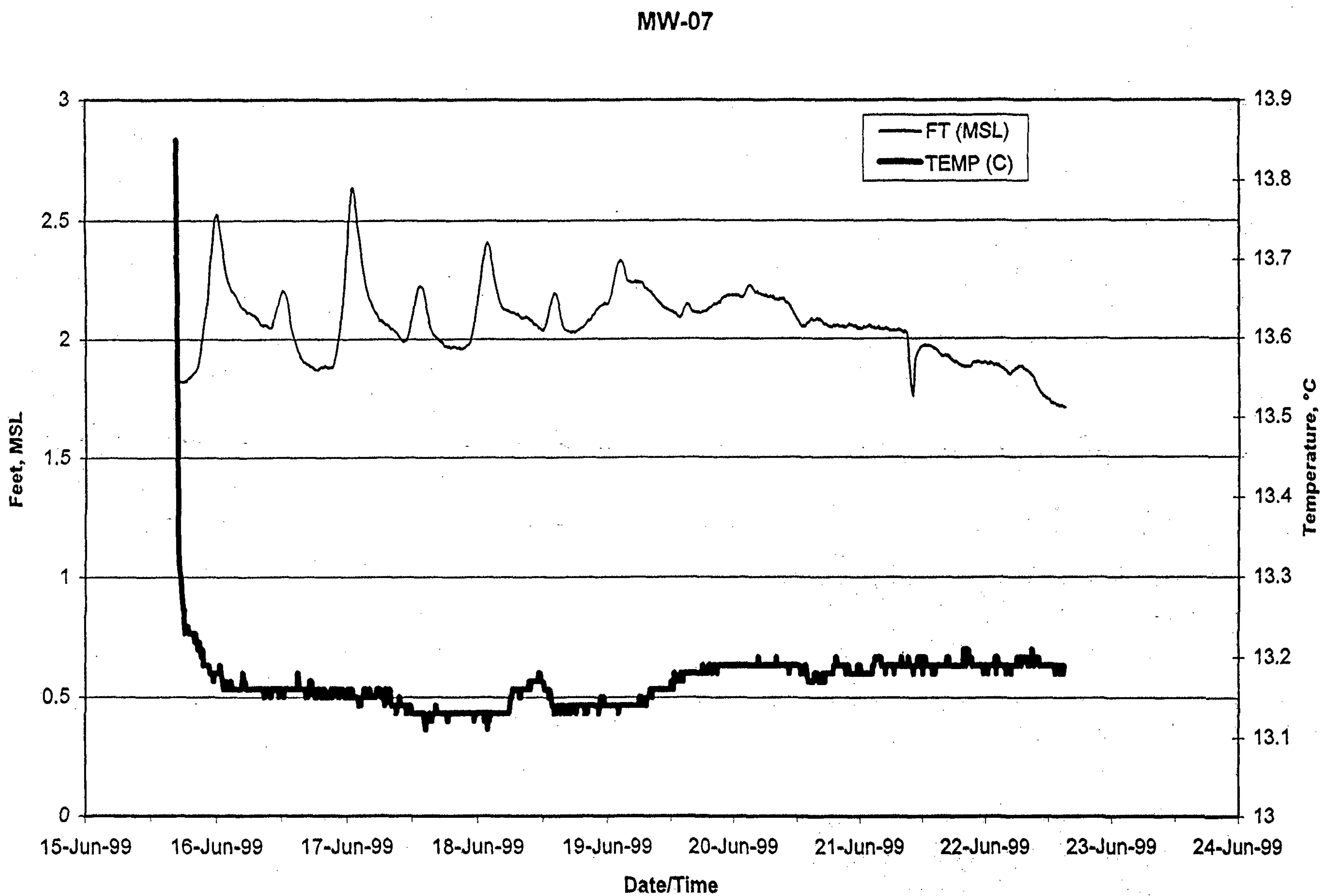
FUGRO GEOSCIENCES,INC

APPENDIX F

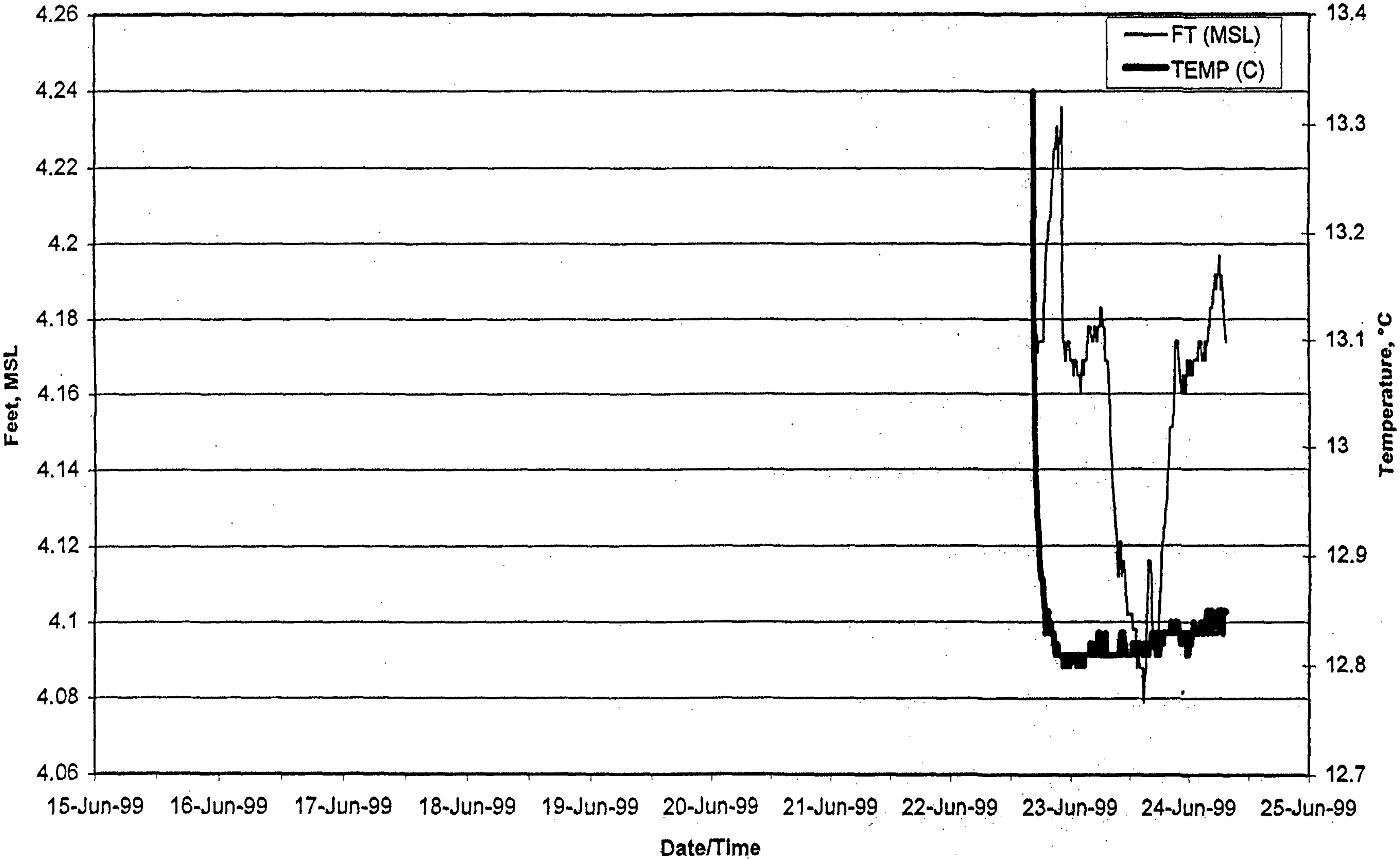
TIDAL FLUCTUATION GRAPHS



Hudson River Tide Station
FT (MSL)
TEMP (C)
Feet, MSL
Temperature °C
4
3
2
1
0
-1
-2
-3
-4
17.5
17
16.5
16
15.5
15
15-Jun-99
16-Jun-99
17-Jun-99
18-Jun-99
19-Jun-99
20-Jun-99
21-Jun-99
22-Jun-99
23-Jun-99
24-Jun-99
25-Jun-99
Date/Time


MW-07
FT (MSL)
TEMP (C)
Feet, MSL
Temperature, °C
Date/Time
3
2.5
2
1.5
1
0.5
0
13.9
13.8
13.7
13.6
13.5
13.4
13.3
13.2
13.1
13
15-Jun-99
16-Jun-99
17-Jun-99
18-Jun-99
19-Jun-99
20-Jun-99
21-Jun-99
22-Jun-99
23-Jun-99
24-Jun-99

MW-20



4.26
4.24
4.22
4.2
4.18
4.16
4.14
4.12
4.1
4.08
4.06
Feet, MSL
13.4
13.3
13.2
13.1
13
12.9
12.8
12.7
Temperature, °C
FT (MSL)
TEMP (C)
15-Jun-99
16-Jun-99
17-Jun-99
18-Jun-99
19-Jun-99
20-Jun-99
21-Jun-99
22-Jun-99
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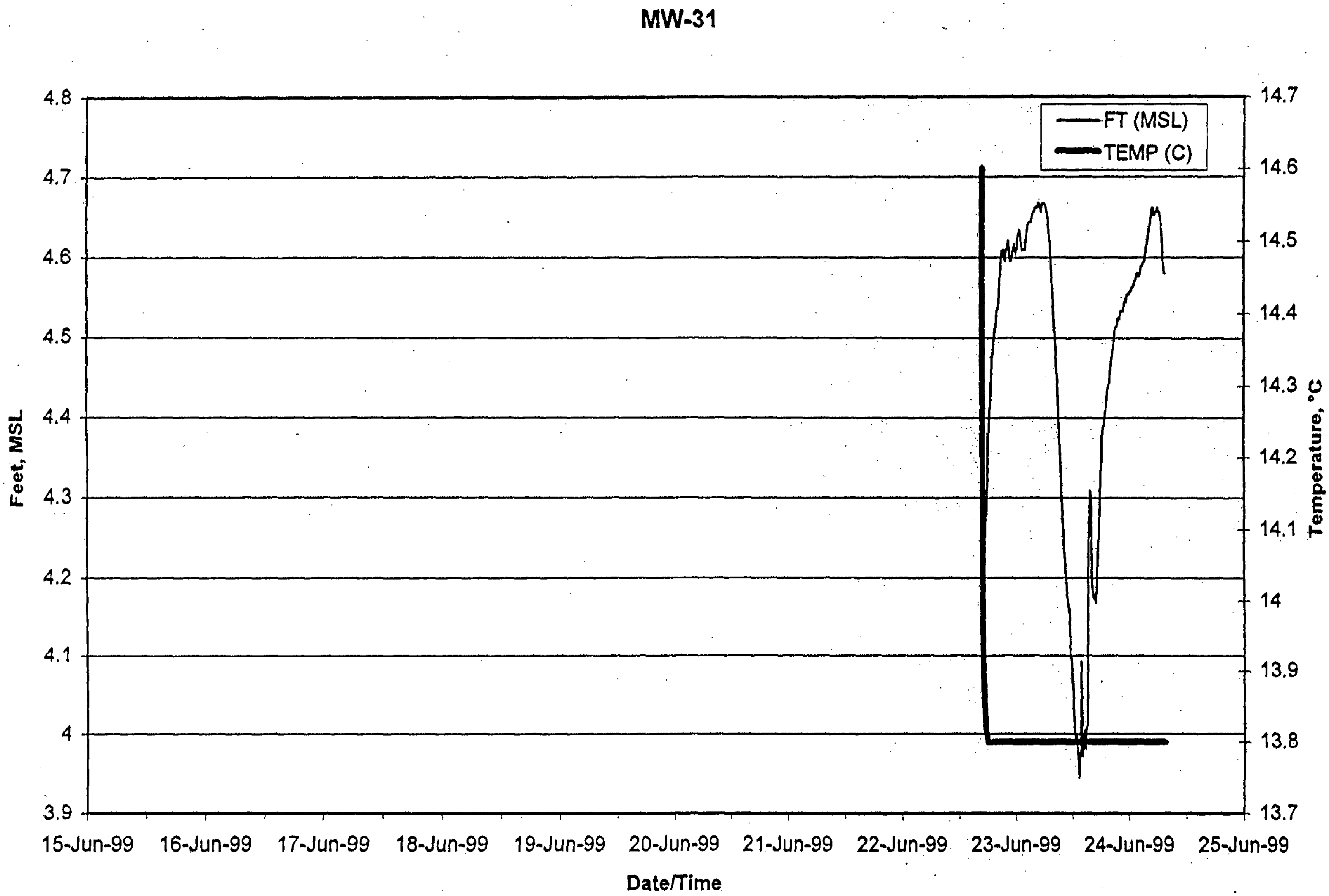
24-Jun-99
25-Jun-99
Date/Time


MW-31
FT (MSL)
TEMP (C)
Feet, MSL
Temperature, °C
Date/Time
4.8
4.7
4.6
4.5
4.4
4.3
4.2
4.1
4
3.9
14.7
14.6
14.5
14.4
14.3
14.2
14.1
14
13.9
13.8
13.7
15-Jun-99
16-Jun-99
17-Jun-99
18-Jun-99
19-Jun-99
20-Jun-99
21-Jun-99
22-Jun-99
23-Jun-99
24-Jun-99
25-Jun-99

APPENDIX G

ANALYTICAL DATA COMPUTER DISK